



United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE
2002/2003

Volume VI: REGIONAL REPORT: **MBEYA REGION**



Cattle Rearing



Fish Harvesting



Eggs Production



Maize Planting



Paddy Growing



Hand Cultivation



Indigenous Chicken



Irrigation Practice



Orange Marketing



Cassava Planting



Goats Rearing



United Republic of Tanzania

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OF AGRICULTURE
2002/2003**



VOLUME Vi: REGIONAL REPORT: MBEYA REGION

*National Bureau of Statistics, Ministry of agriculture and Food Security,
Ministry of Water and Livestock Development, Ministry of Cooperatives and Marketing,
Presidents Office, Regional Administration and Local Government,
Ministry of Finance and Economic Affairs – Zanzibar*

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ACRONYMS

<i>ASDP</i>	<i>Agricultural Sector Development Project</i>
<i>CSPPro</i>	<i>Census and Survey Processing Program</i>
<i>DFID</i>	<i>Department For International Development</i>
<i>DIAS</i>	<i>District Integrated Agricultural Survey</i>
<i>DS</i>	<i>District Supervisor</i>
<i>EAS</i>	<i>Expanded Agricultural Survey</i>
<i>EAs</i>	<i>Enumeration Areas</i>
<i>EU</i>	<i>European Union</i>
<i>FE</i>	<i>Field Enumerator</i>
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>Ha</i>	<i>Hectares</i>
<i>IAS</i>	<i>Integrated Agricultural Survey</i>
<i>ICR</i>	<i>Intelligent Character Recognition</i>
<i>IEC</i>	<i>Information, Education and Communication</i>
<i>JICA</i>	<i>Japanese International Cooperation Agency</i>
<i>LRS</i>	<i>Long Rainy Season,</i>
<i>MAFS</i>	<i>Ministry of Agriculture and Food Security</i>
<i>MCM</i>	<i>Ministry of Co-operatives and Marketing</i>
<i>MWLD</i>	<i>Ministry of Water and Livestock Development</i>
<i>NBS</i>	<i>National Bureau of Statistics</i>
<i>NGO</i>	<i>Non Governmental Organization</i>
<i>NMS</i>	<i>National Master Sample</i>
<i>NSCA</i>	<i>National Sample Census of Agriculture</i>
<i>NSGRP</i>	<i>National Strategy for Growth and Reduction of Poverty</i>
<i>PORALG</i>	<i>President's Office, Regional Administration and Local Government</i>
<i>PPS</i>	<i>Probability Proportional to Size</i>
<i>PSU</i>	<i>Primary Sampling Unit</i>
<i>RAAS</i>	<i>Rapid Appraisal Agricultural Survey</i>
<i>RS</i>	<i>Regional Supervisor</i>
<i>RSM</i>	<i>Regional Statistical Manager</i>
<i>SAC</i>	<i>Scotts Agriculture Consultancy Ltd</i>
<i>SPSS</i>	<i>Statistical Package for Social Science</i>
<i>SRS</i>	<i>Short Rainy Season</i>
<i>TOT</i>	<i>Training of Trainers</i>
<i>ULG</i>	<i>Ultek Laurence Gould</i>
<i>UNDP</i>	<i>United Nations Development Programme</i>
<i>UNFAO</i>	<i>United Nations Food and Agriculture Organization</i>
<i>VPO</i>	<i>Vice President Office</i>

PREFACE

At the end of the 2002/03 Agriculture Year, the National Bureau of Statistics, Tanzania Mainland and the Office of the Chief Government Statistician, Tanzania Zanzibar in collaboration with the Ministries of Agriculture and Food Security; Water and Livestock Development; Cooperatives and Marketing as well as the President's Office, Regional Administration and Local Government (PORALG) conducted the Agriculture Sample Census. This is the third Agriculture Census to be carried out in Tanzania, the first one was conducted in 1971/72, the second in 1993/94 and 1994/95 (data on household characteristics and livestock count were collected in 1993/1994 while data on crop area and production were collected in 1994/95).

It is considered that this census is one of the largest to be carried out in Africa and indeed in many other countries of the world. The census collected detailed data on crop production, crop marketing, crop storage, livestock production, fish farming, tree farming, access to infrastructures and services and poverty indicators.

In addition to this, the census was large in its coverage as it provides data that can be disaggregated at district level and thus allow comparisons with the 1998/99 District Integrated Agricultural Survey. The census covered smallholders in rural areas only and large scale farms.

This report presents Shinyanga region data disaggregated to district level. Due to numerous variables collected, the analysis is based on the most important smallholder variables. More variables can be found in the table of results annex.

The extensive nature of the census in relation to its scope and coverage is a result of the increasing demand for more detailed information to assist in the proper planning of this sector and in the administrative decentralization of planning to district level. It is hoped that this report will provide new insights for planners, policy makers, researchers and others involved in the agricultural sector in order to improve the prevailing conditions faced by crop producers and livestock keepers in the country.

On behalf of the Government of Tanzania, I wish to express my appreciation for the financial support provided by the development partners, in particular, the European Union as well as DFID, UNDP, Japanese Government, JICA and others who contributed through the pool fund mechanism.

Special thanks should go to all those who in one-way or the other contributed to the success of the survey. In particular, I would like to mention the enormous effort made by the Planning Group composed of professionals from the Agriculture Statistics Department of the National Bureau of Statistics (NBS), the Office of the Chief Government Statistician, Zanzibar (OCGS) and the Statistics Unit of the Ministry of Agriculture and Food Security (MAFS) with technical assistance provided by Ultec Lawrence Gould (ULG), Scotts Agriculture Consultancy Ltd and the Food and Agriculture Organisation of the United Nations (FAO).

Finally, let me extend my sincere gratitude to all professional staff of the National Bureau of Statistics and Office of the Chief Government Statistician, the sector Ministries of Agriculture and PORALG, the Consultants as well as Regional and District Supervisors and field enumerators for their commendable work. I am also indebted to the respondents, particularly the heads of households, for spending much of their valuable time in providing data and all necessary information during enumeration. Certainly without their dedication, the census would not have been successful.



Albina A. Chuwa
Director General,
National Bureau of Statistics

EXECUTIVE SUMMARY

The executive summary highlights the main survey results obtained during the National Sample Census of Agriculture 2002/03. This report covers small-scale agriculture households in rural areas of Mbeya region who were selected using statistical sampling techniques. The results in the report do not cover urban areas and large-scale farmers.

The highlights describe the important findings in relation to agricultural production, productivity, husbandry, access to resources, levels of involvement in agricultural related activities and poverty in Mbeya region activities indicators for one to get an overview, at regional level, of the rural agricultural households and their levels of involvement in agricultural related activities.

i) Household Characteristics

The number of agricultural households in Mbeya region was 372,844 out of which 232,209 (62.3%) were involved in growing crops only, 1,195 (0.3%) rearing livestock only, 85,121 (32%), 139,441 (37.4%) were involved in crop production as well as livestock keeping. No pastoralist were found in the district.

Most of the agricultural households ranked annual crop farming as an activity that provides most of their livelihood/income followed by off farm income, fishing/hunting, tree/forest resources, permanent crop farming, livestock keeping/herding and remittances.

The district with the highest literacy rate for heads of households was Chunya (76%) followed by Rungwe (73%), Mbeya Rural (72%), Mbozi (70%), Ijeje (69%), Ileje (69%), Mbeya Urban (69%), Mbarali (65%) and Kyela (62%). The literacy rate for the heads of households in the region was 69.4 percent.

The number of heads of agricultural households with formal education in Mbeya region was 251,109 (68%), those without formal education were 116,395 (31%) and those with only adult education were 5,340 (1%). The majority of heads of agricultural households (64%) had primary level education whereas only 4 percent had post primary education.

In Mbeya region there was 158,917 households (42%) with one household member engaged in off-farm income generating activity, 102,665 households (28%) had two members involved in off-farm income generating activities and 22,487 households (6%) had more than two members involved in off-farm income generating activities. Only 24 percent of household members were not involved in off-farm income generating activities.

ii) Crop Production

▪ Land Area

The total area of land available to smallholders was 672,227 ha. The regional average land area utilised for agriculture per household was only 1.5 ha. This figure is below the national average which is estimated at 2.0 hectares.

▪ Planted Area

The area planted with annual crops and vegetables was 428,533 hectares out of which 160,820 hectares (37.5%) were planted during short rainy season and 267,713 hectares (62.5%) during long rainy season.

The area planted with cereals was 328,941 ha (71.6% of the total planted area for annual crops), followed by pulses with 65,043 ha (14.2%), oil seeds & oil nuts 30,141 ha (6.6%), root and tubers 27,141 ha (5.9%), fruits and vegetables 3,982 ha (0.9%) and Annual cash crops that are mainly constituted of pyrethrum and tobacco had got the least planted area of about 3,979 ha (0.9%)

- **Maize**

Maize is the dominant annual crop grown in Mbeya region and it had a planted area 3 times greater than beans, which had the second largest planted area. The area planted with maize constitutes 47 percent of the total area planted with annual crops in the region. Other crops in order of their importance (based on area planted) are beans, paddy, sorghum, groundnuts, cassava, finger millet, irish potatoes, wheat, sunflower, tobacco, bulrush millet, field peas and tomatoes

There has been little change in production over the years 1995 to 2003. However the area planted increased sharply over the period 1997 to 1998 and remained constant ever since. The increase implanted are has not resulted in an increase in production as the productivity decreased over the same period. The average area planted with maize per maize growing household was 0.7 hectares; however it ranged from 0.4 hectares in both Rungwe and Kyela districts to 1 hectare in Chunya district.

Mbozi district had the largest area of maize (67,736 ha) followed by Chunya (40,508 ha), Mbeya Rural (37,429 ha), Mbarali (32,101 ha), Rungwe 28,982 ha), Ileje (14,551 ha), Kyela (7,036 ha) and Mbeya Urban (3,400 ha)

- **Paddy**

Paddy was the second most important cereal crop in the region in terms of planted area. The number of households that grew paddy in Mbeya region during the long rainy season was 80,091. This represented 23.3 percent of the total households growing annual crops in Mbeya region in the wet season. The total production of paddy was 62,780 tonnes from a planted area of 54,743 hectares resulting in a yield of 1.15 t/ha

- **Cassava**

The number of households growing cassava in the region was 41,254. This represents 11.1 percent of the total crop growing households in the region

- **Fruit and Vegetables**

The total planted area of fruits and vegetables was 3,982 hectares. The most cultivated fruit and vegetable crop was the tomatoes with a production of 1,218 hectares.

- **Permanent Crops**

-

The area of smallholders planted with permanent crops was 153,578 hectares (25% of the total area planted with crops in the region).

The most important permanent crop in Mbeya region was coffee which had a planted area of 59,460 ha, (39% of the planted area of all permanent crops) followed by banana (52,715 ha, 35%), cocoa (15,462 ha, 10%), mango (8,359 ha, 5%), tea (4,608 ha, 3%), avocado (3,662 ha, 2%) and palm oil (3,414 ha, 2%).

- **Improved Seeds**

The planted area with improved seeds was estimated at 60,124 ha which represented 13 percent of the total area planted with annual crops and vegetables. The percentage use of improved seed in the wet season was 12.4 percent, which was lower than the corresponding percentage use for the dry season (19.9%).

- **Use of Fertilizers**

The use of fertilisers on annual crops was relative small with an application on a planted area of only 162,977 ha (35.5% of the total area planted with annual crops in the region. Inorganic fertiliser was applied to 83,890 hectares which represented 18.3 percent of the total planted area (51.5 % of the area planted with fertiliser application in the region). This was followed by farm yard manure (55,610 ha, 34.1%) and compost was used on a small area of 23,477 hectares which represented 14.4 percent of the area planted with fertilizers. The highest percentage of the area planted with fertilizer (all types) was in Mbozi district (36.3%) followed by Mbeya Rural (19.5%), Rungwe (13.8%), Ileje (10.0%), Chunya (9.8%), Mbarali (5.1%), Kyela (3.2%) and Mbeya Urban (2.4%)

- **Irrigation**

In Mbeya region, the area of annual crops under irrigation was 46,241 ha representing 10 percent of the total area planted. The area under irrigation during the short rainy season was 3,229 ha accounting for 7 percent of the total area under irrigation. Some crops, especially vegetables, were predominantly grown in the short rainy season with irrigation. In the dry season, 59.3 percent of the area planted with cereals was irrigated, whilst 72.1 percent of the cereals were irrigated in the wet season.

- **Crop Storage**

The results for Mbeya region show that there were 336,776 crop growing households (90.6% of the total crop growing households) that stored various agricultural products in the region.

The most important stored crop was maize with 296,438 households storing 60,824 tonnes as of 1st October 2003. This was followed by beans and other pulses (161,882 households, 4,923t), paddy (63,146 households, 12,747t), sorghum and millets (41,935 households, 8,250t), groundnuts and bambaranuts (22,915 households, 909t), wheat (9,060 households, 1,147t) and coffee (4,693 households, 287t).

- **Crop Marketing**

The number of households that reported selling crops was 292,480 which represented 80.3 percent of the total number of crop growing households. The percentage of crop growing households selling crops was highest in Mbozi (90%) followed

by Rungwe (88%), Mbeya Rural and Kyela districts had (85%) each, Ileje (84%), Mbeya Urban (77%) Mbarali (53%) and Chunya (43%)

- **Agricultural Credit**

The census result shows that in Mbeya region very few agricultural households (21,141 households, 6% of agricultural households) accessed credit. Out of which (16,887 households, 80%) were male-headed households and (4,254 households, 20%) were female.

In Mbozi district only male headed households got agricultural credit whereas Ileje district had the highest percentage of female headed households (75%) that got agricultural credits.

- **Crop Extension Services**

The number of Agricultural households that received crop extension was 153,818 (41% of total crop growing households in the region) (Chart 3.105). Some districts had more access to extension services than others, with Chunya having a relatively high proportion of households (92%) that received crop extension messages in the district followed by Mbeya Urban (75%), Mbeya Rural (68%), Mbozi (39%), Ileje (35%), Rungwe (29%), Mbarali (12%) and Kyela (8%)

- **Soil Erosion and Water Harvesting Facilities**

The number of agricultural households that had soil erosion and water harvesting facilities on their farms was 61,540 representing 17 percent of the total number of agricultural households in the region (Chart 3.120).

The proportion of households with soil erosion control and water harvesting facilities was highest in Ileje district (31% of the agricultural households in the district), followed by Rungwe (25%), Mbeya Rural (23%), Mbozi and Mbeya Urban districts had (21%) each, Mbarali (13%), Chunya (2%) and Kyela (0.2%) (Chart 3.121).

iii) **Livestock and Poultry Production**

- **Cattle**

The total number of cattle in the region was 941,077. Cattle rearing are the dominant livestock type in the region followed by goats, sheep and pigs. The region had 5.6 percent of the total cattle population on the Tanzanian Mainland. The number of indigenous cattle was 898,050 (95.4 % of the total number of cattle in the region), 40,982 (4.4%) were dairy breeds and only 2,045 (0.2%) were beef breeds.

- **Goats**

The number of goat-rearing-households in the region was 59,999 (16% of all agricultural households) with a total of 358,789 goats giving an average of 6 head of goats per goat-rearing-households.

- **Sheep**

The number of sheep-rearing households was 11,605 (3% of all agricultural households in Mbeya region) rearing 66,031 sheep, giving an average of 6 heads of sheep per sheep-rearing household.

- **Pigs**

The number of pig-rearing agricultural households in Mbeya region was 78,724 (21% of the total agricultural households in the region) rearing 227,036 pigs. This gives an average of 3 pigs per pig-rearing household.

- **Chicken**

The number of households keeping chicken was 256,387 raising about 2,559,913 chickens. This gives an average of 10 chickens per chicken-rearing household. In terms of total number of chickens in the country, Mbeya region ranked third out of the 21 Mainland regions

- **Use of Draft Power**

The region has 114,206 oxen and they were mainly found in 4 districts. The district with the largest number of oxen was Mbozi (43,361). This was followed by Mbarali (26,073 oxen), Chunya (18,123 oxen) and Kyela (17,496 oxen). The number of oxen in the region accounted for 5 percent of the total oxen found on the Mainland.

- **Fish Farming**

The number of households involved in fish farming in Mbeya region was 1,713, representing 0.5 percent of the total agricultural households in the region. Rungwe was the leading district with 578 households (34% of agricultural households involved in fish farming). This was followed by Mbozi (534 households, 31%), Ileje (256 households, 15%), Mbeya Rural (243 households, 14%), Chunya (84 households, 5%) and Mbeya Urban (17 households, 1%). Fish farming was not practiced in Kyela and Mbarali districts.

iv) Poverty Indicators

- **Availability of Toilets**

It was estimated that 92 percent of all rural agricultural households used the traditional pit latrines, pit latrine and 4 percent had flush toilets and 2 percent used improved pit latrines. The remaining 0.1 percent of households had other unspecified types of toilets. Households with no toilet facilities represent 2 percent of the total agriculture households in the region.

- **Household Assets**

Out of all assets, radios had the highest percent of households owning them (53.4% of households) followed by bicycle (35.1%), iron (23.8%), wheelbarrow (5.5%), mobile phone (1.8%), vehicle (1.4%), television/video (1.3%), and landline phone (0.4%).

- **Source of Lighting Energy**

Wick lamp was the most common source of lighting energy in the region with 68 percent of the total rural households using this source, followed by hurricane lamp (26%), pressure lamp (3%), mains electricity (2%) and firewood (1%). The remaining sources of energy for lighting were insignificant.

- **Energy for Cooking**

The most prevalent source of energy for cooking was firewood, which was used by 96 percent of all rural agricultural households in Mbeya region. This was followed by charcoal (3%) and crop residues (1%). The rest of energy sources

accounted for 0.7 percent. These were mains electricity and solar had (0.2%) each, paraffin/kerosene, bottled gas and livestock dung each (0.1%) and other sources of energy for cooking (0.02%).

▪ **Roofing Materials**

The most common roofing material for roofing of the main dwelling was grass and/or leaves and which was used by 52 percent of the rural agricultural households. This was followed by iron sheets (42%), grass/mud (5%) and tiles (1%). The remaining roofing materials were below one percent

▪ **Number of Meals per Day**

About 69 percent of the holders in the region took two meals per day, 28 percent took three meals, 3 percent took one meal and 0.4 percent took four meals.

▪ **Food Security**

Households which seldom had problems in satisfying their food needs represent 28 percent of the total number of agriculture households in the region. Households with recurring food shortage problems represent 6 percent whereas those with little problems represent 5 percent. About 3 percent of agriculture households always faced food shortages whilst 58 percent did not experience any food shortage problems.

▪ **Main Source of Cash Income**

Selling of food crops was the main cash income earning activity reported by 50 percent of all rural agricultural households. The second main cash income earning activity was selling cash crops (17%), businesses (11%), other casual cash (9%), wages & salaries (3%), livestock (2%), forest products (2%), other (2%), livestock products (1%) and fishing (1%).

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1. BACKGROUND INFORMATION

1.1 Introduction

This part of the report presents a brief description of the regional profile by providing information on geographical location, land area, climate, administrative set up, population and socio-economic indicators. The information will provide the user with a general understanding of the region and its resources.

1.2 Geographical Location and Boundaries

Mbeya region is located in South West Corner of the Southern Highlands of Tanzania. The region lies between Latitude 7° and 9° - 31° South of Equator, and between Longitudes 32° and 35° East of the Greenwich Meridian. Mbeya region lies at an altitude of 500 meters above sea level with high peaks of 2,981 meters above sea level at rungswe higher altitudes.

Mbeya region shares borders with Zambia and Malawi to the South, Rukwa Region to the West; Taborab and Singida Regions to the North; and Iringa Region to the East. Tunduma and Kasumulu in Mbozi and Kyela districts respectively are the main entries into the neighbouring countries of Zambia and Malawi

1.3 Land Area

The region has an area of 63,420 square kilometers, which is 6.4% of the total area of Tanzania Mainland. About forty seven percent of the land area is arable

1.4 Climate

1.4.1 Temperature

Mbeya region lies at an altitude ranging from 500 meters to 2,400 meters above sea level. The temperatures range between 16°C in the highlands and 25°C in the lowland areas.

1.4.2 Rainfall

Mbeya Region receives abundant and reliable rainfall. Most districts have a mono-modal rainfall pattern. The dry season normally begins in June and ends in December whilst the Wet season runs from January to May. Annual rainfall varies from 650 mm to more than 2,600 mm.

1.5.1 Administrative Setup

The region comprises eight districts namely Chunya, Mbeya Rural, Kyela, Rungwe, Ileje, Mbozi, Mbarali and Mbeya Urban. The region headquarters is located in Mbeya Municipality.

1.6 Population

Based on the 2002 Population and Housing Census, the population of Mbeya region was 2,070,046. It is among the most populous regions with 6.6% of the Tanzania Mainland Population. In terms of population density Mbeya region is ranked fourth.

1.7 Socio - Economic Indicators

The economy of Mbeya region mainly depends on subsistence agriculture. About 80% of the population depends on agriculture. On the average, agriculture accounts for over 40% of the region's Gross Domestic Product (GDP) and about 80% of the population are engaged in agriculture.

The region is famous for producing both food and cash crops. The main food crops produced in Mbeya region include: maize, paddy, beans and sorghum, irish potatoes, and sweet potatoes. The main cash crops include coffee, Pyrethrum and tea. Livestock keeping is also an important economic activity in the region.

- **Food Crops**

Mbeya region has suitable land for agricultural production main crops include maize, paddy, sorghum, millet banana and beans.

- **Cash Crops**

The main cash crops include: coffee, banana, pyrethrum, banana, paddy and maize

- **Livestock**

Livestock kept are: cattle; goats; sheep; pigs, chickens and ducks

- **Industrial Activities**

Small scale industrial activities, small-scale mining and other petty businesses. Most rural farmers participate in activities that are related to small- scale industries such as carpentry, weaving; pottery; brick making; skin/hides etc. Mbeya boasts of accommodating the Kiwira Coal Mine and Mbeya Cement Factory

1.7.1: Transport

There is a total of 4,831 km of road network in the region. Trunk roads, Regional roads, district roads and feeder roads. Of these, the feeder roads, which cover the distance of 1,463 km, are almost impassable during the wet seasons.

From Dar es Salaam, Mbeya region can be reached by road, air and railway (**TAZARA**). It is also well connected by road to the neighbouring regions. Also, Mbeya region has reliable marine transportation in Lake Nyasa. There are also other communication networks in the region such as postal, telephone telex and fax services.

2.0 INTRODUCTION

This part of the report provides the technical and operational description of the National Sample Census of Agriculture (NSCA), carried out in the rural areas of Tanzania Mainland and Zanzibar during the 2002/03 agricultural year. It details the background and the rationale for carrying out the NSCA in 2002/03 agricultural year. It also explains the sampling procedures, designing and implementation of the data processing system.

2.1 The Rationale for Conducting the National Sample Census of Agriculture

In 2003, the Government of Tanzania launched the Agricultural Sample Census as an important part of the Poverty Monitoring Master Plan which supports the production of statistics for advocacy of effective public policy, including poverty reduction, access to services, gender, as well as the standard crop production data normally collected in an agriculture census. The census is intended to fill the information gap and support planning and policy formulation by high level decision making bodies. It is also meant to provide critical benchmark data for monitoring Agriculture Sector Development Programme (ASDP) and other agriculture and rural development programs as well as prioritising specific interventions of most agriculture and rural development programs.

Following the decentralisation of the Government's administration and planning functions, there has been a pressing need for agriculture and rural development data disaggregated at regional and district levels. The provision of district level estimates will provide essential baseline information on the state of agriculture and support decision making by the Local Government Authorities in the design of District Agricultural Development and Investment Projects (DADIPS). The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

This report (Volume V) is among the 21 regional reports for the mainland. Other Census reports include the Technical Report (Volume I), crop sector at national and regional levels including Zanzibar estimates (Volume II), Livestock Report (Volume III), Smallholder Household Characteristics and Access to Natural Resources Report (Volume IV), 21 Regional Reports for the Mainland (Volume V), Large Scale Farms Report (Volume VI) and a separate report for Zanzibar (Volume VII). In order to address the specific issue of gender, a separate thematic report on gender has been published. Other thematic reports will be produced depending on the demand and availability of funds. In addition to these reports two dissemination applications have been produced to allow users to create their own tabulations, charts and maps.

The report is divided into five main sections: Background Information, Introduction, Results, Evaluation and Conclusion and Appendices. The definitions relating to all aspects of this report can be found in the questionnaire (Appendix III).

2.2 Census Objectives

The 2003 Agriculture Sample Census was designed to meet the data needs of a wide range of users down to district level including policy makers at local, regional and national levels, rural development agencies, funding institutions, researchers, Non government Organisations (NGOs), farmer organisations, etc. As a result, the dataset is both more numerous in its sample and detailed in its scope compared to previous censuses and surveys. To date this is the most detailed Agricultural Census carried out in Africa. The census was carried out in order to:

- Identify structural changes if any, in the size of farm household holdings, crop and livestock production, farm input and implement use. It also seeks to determine if there are any improvements in rural infrastructure and in the level of agriculture household living conditions;

-
- Provide benchmark data on productivity, production and agricultural practices in relation to policies and interventions promoted by the Ministry of Agriculture and Food Security and other stake holders.
 - Establish baseline data for the measurement of the impact of high level objectives of the Agriculture Sector Development Programme (ASDP), National Strategy for Growth and Reduction of Poverty (NSGRP) and other rural development programs and projects.
 - Obtain benchmark data that will be used to address specific issues such as: food security, rural poverty, gender, agro-processing, marketing, service delivery, etc.

2.3 Census Coverage and Scope

The census was conducted for both large and small scale farms. The National Sample Census of Agriculture covered a total of 3,221 selected rural villages of Tanzania Mainland out of which 215 villages were from Mbeya region.

The census covered agriculture in detail as well as many other aspects of rural development and was conducted using three types of questionnaires:

- Small scale farm questionnaire
- Community level questionnaire
- Large scale farm questionnaire

The small scale farm questionnaire was the main census instrument and it includes questions related to crop and livestock production and practices; population demographics; access to services, resources and infrastructure; issues on poverty, gender and subsistence versus profit making production units. The main sections covered are as follows:

- Identification (i.e. region, district, ward and village)
- Household and holding characteristics
- Household information
- Land ownership/tenure
- Land use
- Access and use of resources
- Crop and vegetable production
- Agro processing and by-Products
- Crop storage and marketing
- On-farm investment
- Access to farm inputs and implements
- Use of credit for agricultural purposes
- Tree farming/agro-forestry
- Crop extension services
- Livelihood constraints
- Animal contribution to crop production
- Livestock
- Livestock products
- Fish farming
- Livestock extension
- Labour use

- Access to infrastructure and other services
- Household facilities

The community level questionnaire was designed to collect village level data such as access and use of common resources, community tree plantation and seasonal farm gate prices.

The large scale farm questionnaire was administered to large scale farms that were either privately or corporately managed. There will be a national report on large scale farming on Tanzania Mainland.

2.4 Legal Authority of the National Sample Census of Agriculture

The NSCA 2002/03 was conducted under the legal authority of the 2000 National Bureau of Statistics Act which, among other things, makes data collected from individuals strictly confidential and to be used for statistical purposes only.

2.5 Reference Period

Two types of reference periods were used namely the agricultural year and the reference date for livestock enumeration. The agricultural year 2002/03 (that is October 2002 to September 2003) was used for the data items that are related to crop production. The reference date of enumeration for livestock and poultry count was 1st October 2003.

2.6 Census Methodology

The main focus at all stages of the census execution was on data quality and this is emphasised in this section. The main activities undertaken include:

- Census organisation
- Tabulation plan preparation
- Sample design
- Design of census questionnaires and other instruments.
- Field pre-testing of the census instruments
- Training of trainers, supervisors and enumerators
- Information Education and Communication (IEC) campaign
- Data Collection
- Field supervision and consistency checks
- Data processing:
 - Scanning
 - ICR extraction of data
 - Structure formatting application
 - Batch validation application
 - Manual data entry application
 - Tabulation preparation using SPSS
- Table formatting and charts using Excel, map generation using Arc View and Freehand.
- Report preparation using Word and Excel.

2.6.1 Census Organization

The Census was conducted by the National Bureau of Statistics in collaboration with the sector ministries of agriculture, and the Office of the Chief Government Statistician in Zanzibar. At the national level the Census was headed by the

Director General of the National Bureau of Statistics with assistance from the Director of Economic Statistics. The Planning Group, made up of staff from the National Bureau of Statistics, Department of Agricultural Statistics and three representatives from the Ministry of Agriculture and Food Security (Department of Policy and Planning), oversaw the overall operational aspects of the Census. At the regional level, implementation of census activities was overseen by the Regional Statistical Officer of NBS and the Regional Agriculture Supervisor from the Ministry of Agriculture and Food Security. At the District level, two supervisors from the President's Office, Regional Administration and Local Government (PORALG), managed the enumerators who also came from the same ministry.

Members of the Planning Group had a minimum qualification of a bachelor degree; the regional supervisors were agricultural economists, statisticians or statistical officers. The district supervisors and enumerators had diploma level qualifications in agriculture.

The Census and Surveys Technical Working Group provided support in sourcing financing, approving budget allocations and technical assistance inputs as well as monitoring the progress of the census. A Technical Committee for the census was established with members from key stakeholder organisations (i.e. NBS, sector ministries of agriculture, President's Office, Planning and Privatization (POPP), PORALG, University of Dar es Salaam (UDSM), Tanzania Food and Nutrition Centre (TFNC) and the Office of Chief Government Statistician (OCGS) in Zanzibar). The main function of the committee was to approve the proposed instruments and procedures developed by the Planning Group. It also approved the tabulations and analytical reports prepared from the Census data.

2.6.2 Tabulation Plan

The tabulation plan was developed following three user group workshops and thus reflects the information needs of the end users. It took into consideration the tabulations from previous census and surveys to allow trend analysis and comparisons.

2.6.3 Sample Design

The Mainland sample consisted of 3,221 villages. These villages were drawn from the National Master Sample (NMS) developed by the National Bureau of Statistics (NBS) to serve as a national framework for the conduct of household based surveys in the country. The National Master Sample was developed from the 2002 Population and Housing Census. In most cases, within each selected village, data was collected from a sub-sample of fifteen agricultural households. In few large villages thirty households were selected. The total Mainland sample was 48,315 agricultural households. In Zanzibar a total of 317 EAs were selected and 4,755 agricultural households were covered. Nationwide, all regions and districts were sampled with the exception of three urban districts (two from Mainland and one from Zanzibar).

In both Mainland and Zanzibar a stratified two stage sample was used. In the first stage, villages/enumeration areas (EAs) were selected with probability proportional to the number of villages in each district. In the second stage, 15 households were selected from a list of farming households in each Village/EA using systematic random sampling. Table 2.1 gives the sample size of households, villages and districts for Tanzania Mainland and Zanzibar.

Table 2.1: Census Sample Size

Number of	Mainland	Zanzibar	Total
Households	48,315	4,755	53,070
Villages/Eas	3,221	317	3,539
Districts	117	9	126
Regions	21	5	26

2.6.4 Questionnaire Design and Other Census Instruments

The census questionnaires were designed following user/producer meetings to ensure that the information collected was in line with their data needs. Several features were incorporated into the design of the questionnaire to increase the accuracy of the data:

- Where feasible all variables were extensively coded to reduce post enumeration coding error.
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the farmer.
- The responses to all questions were placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and ICR technologies for data entry.
- Skip patterns were used to avoid asking unnecessary questions
- Each section was clearly numbered, which facilitated the use of skip patterns and provided a reference for data type coding for the programming of CSPro, SPSS and the dissemination applications.

Besides the questionnaires, there were other instruments used:

- Village listing forms that were used for listing households in the villages and from this list a systematic sample of 15 agricultural households were selected from each village.
- Training manual which was used by the trainers for the cascade/pyramid training of supervisors and enumerators. This manual was trainers guiding document on the procedures to follow during the training
- Enumerator Instruction Manual which was used as reference material.

2.6.5 Field Pre-Testing of the Census Instruments

The Questionnaire was pre-tested in five locations (Arusha, Dodoma, Tanga, Unguja and Pemba). This was done purposely to test the wording, flow and relevance of the questions and to finalise crop lists, questionnaire coding and manuals. In addition to this, several data collection methodologies had to be finalised, namely, livestock numbers in pastoralist communities, cut flower production, mixed cropping, use of percentages in the questionnaire and finalising skip patterns and documenting consistency checks.

2.6.6 Training of Trainers, Supervisors and Enumerators

Cascade/pyramid training techniques were employed to maintain statistical standards. The top level training was provided to 66 national and regional supervisors (3 per region plus Zanzibar). The trainers were members of the Planning Group and the trainees were from the National Bureau of Statistics and the sector ministries of agriculture. The second level training was for the district supervisors and enumerators. This training was conducted in the regions. In each region three training sessions were conducted for the district supervisors and enumerators. In addition to training in field level Census methodology and definitions, emphasis was placed on training the enumerators and supervisors in consistency checking. Tests were given to the enumerators and supervisors and the best 50 percent of the trainees were selected to administer the smallholder and community level questionnaires. This increased the number of interviews per enumerator but it also released finance to increase the number of supervisors and hence the Supervisor Enumerator Ratio. The household listing exercise was carried out by all trained enumerators.

2.6.7 Information, Education and Communication (IEC) Campaign

Information, Education and Communication (IEC) is an important aspect of any census/survey undertaking. This is due to the fact that inadequately informed and hence uncooperative citizens may jeopardize the entire census/survey. As far as the

2002/03 Agricultural Sample Census was concerned, the main objective of the IEC program was to sensitize and mobilize Tanzanians to support, cooperate and participate in the census exercise.

Radio, television, newspapers, leaflets, t-shirts and caps were used to publicise the Sample Census. T-shirts and caps were used by the field staff and the village chairmen as official uniforms during the field work. The village chairmen helped to locate the selected households.

2.6.8 Household Listing

The household listing exercise was done in seven days. During the listing exercise, forms ACLF1 and ACLF2 were administered. The information collected included the number of fields operated by the household, the number of different types of livestock and poultry. This information was used to determine the agricultural households. From the list of agricultural households, 15 households were selected for the interview. The selection was done using the Random Number Table.

2.6.9 Data Collection

Data collection activities for the 2002/2003 Agricultural Sample Census took three months from January to March 2004. The data collection methods used during the census was by interview and no physical measurements, e.g., crop cutting and field area measurement were taken. Field work was monitored by a hierarchical system of supervisors at the top of which was the Mobile Response Team followed by the national, regional, and district supervisors.

The Mobile Response Team consisted of three principal supervisors who provided overall direction to the field operation and responded to queries arising outside the scope of the training exercise. The mobile response team consisted of the Manager of Agriculture Statistics Department, Long-term Consultant and Desk Officer for the Census. Decisions made on definitions and procedures were then communicated back to all enumerators via the national, regional and district supervisors.

District supervision and enumeration were done by staff from the President's Office, Regional Administration and Local Government (PORALG). National and regional supervisions were provided by senior staff of the National Bureau of Statistics and the sector ministries of agriculture. During the household listing exercise 3,221 extension staff was used. For the enumeration of the small holder questionnaire, 1,611 enumerators were used and additional 5 percent enumerators were held in reserve in case of drop outs during the enumeration exercise.

2.6.10 Field Supervision and Consistency Checks

Enumerators were trained to probe the respondents until they were satisfied with the responses given before they recorded them in the questionnaire. The first check of the questionnaires was done by enumerators in the field during enumeration. The second check was done by the district supervisors followed by regional and national supervisors. Supervisory visits at all levels of supervision focused on consistency checking of the questionnaires. Inconsistencies encountered were corrected, and where necessary a return visit to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made through a major post enumeration checking exercise where all questionnaires were checked for consistencies by all supervisors in the district offices.

2.6.11 Data Processing

Data processing consisted of the following processes:

- Manual editing
- Data entry
- Data structure formatting
- Batch validation
- Tabulation
- Illustration production
- Report formatting

Manual Editing

Prior to scanning, all questionnaires underwent a manual cleaning exercise. This involved checking that the questionnaire had a full set of pages, correct identification and good handwriting. A score was given to each questionnaire based on the legibility and the completeness of enumeration. This score will be used to assess the quality of enumeration and supervision in order to select the best field staff for future censuses/surveys.

Data entry/Scanning and ICR extraction technologies

Scanning and ICR data capture technology was used for the small holder questionnaire. This not only increased the speed of data entry, it also increased the accuracy due to the reduction in keystroke errors. Interactive validation routines were incorporated into the ICR software to track errors during the verification process. The scanning operation was so successful that it is highly recommended that this technology be adopted for future censuses/surveys.

The Census and Surveys Processing Program (CSPro) was used to enter 2,880 of small holder questionnaires that were rejected by the Intelligent Character Recognition (ICR) extraction application.

Data structure formatting

A program was developed in visual basic to automatically alter the structure of the output from the scanning/extraction process in order to harmonise it with the manually entered data. The program automatically checked and changed the number of digits for each variable, the record type code, the number of questionnaires in the village, the consistency of the Village Identification (ID) code and saved the data of one village in a file named after the village code.

Batch validation

A batch validation program was developed in order to identify inconsistencies within a questionnaire. This is in addition to the interactive validation during the ICR extraction process. The procedures varied from simple range checking within each variable to more complex checking between variables. It took six months to screen, edit and validate the data from the smallholder questionnaire. After the long process of data cleaning, the results were prepared based on a pre-designed tabulation plan.

Tabulations

Statistical Package for Social Sciences (SPSS) was used to produce the Census results and Microsoft Excel was used to organize the tables and compute additional indicators.

Analysis and report preparation

The analysis in this report focuses on regional and district production estimates, districts comparisons and time series analysis. Microsoft Excel was used to produce charts; whereas Microsoft Word was used to compile the report.

Data quality

A great deal of emphasis was placed on data quality throughout the whole exercise from planning, questionnaire design, training, supervision, data entry, validation and cleaning/editing. As a result of this NBS believes that the Census is highly accurate and representative of what was experienced at field level during the Census year. With very few exceptions the variables in the questionnaire are within the norms for Tanzania and they follow expected time series trends when compared to historical data. Standard Errors and Coefficients of Variation for the main variables can be found in the Technical Report (Volume I).

2.7 Funding Arrangements

The Agricultural Sample Census was supported mainly by the European Union (EU) who financed most of the operational activities. Other funds for operational activities came from the Government of Tanzania, Government of Japan, United Nations Development Programme (UNDP) and other partners in the Pool Fund of the Vice President's Office (VPO). In addition to this, technical assistance was provided by the European Union (EU), Department for International Development (DFID) and Japanese International Cooperation Agency (JICA). Technical assistances were managed by Ultek Laurence Gould Consultants (ULG), Scotts Agriculture Consultancy Ltd (SAC) and the Food and Agriculture Organisation (FAO).

3. CENSUS RESULTS

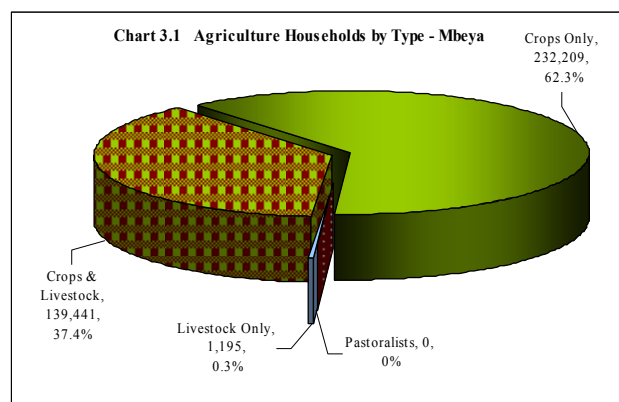
This part of the report presents the results of the census for Mbeya region based on the statistical tables presented in Appendix A2. The results are presented in different forms including brief summaries, charts, condensed tables, graphs and maps in order to make it easy for the users to understand. Comparisons are made between related variables and districts. Comparisons are also made with past censuses and surveys results such as the 1994/95 National Sample Census of Agriculture (NSCA), the 1995/96 and the 1996/97 Expanded Agricultural Survey, the 1997/98 Integrated Agricultural Surveys, the 1998/99 District Integrated Agricultural Survey and the 1999/00 Rapid Agricultural Appraisal Survey. The results are divided into four main sections which are household characteristics, crop results, livestock results and Poverty indicators. Compared to previous more effort has been placed in analyzing the results in order to formulate solid conclusions.

3.1 Household Characteristics

3.1.1 Type of Household

The number of agricultural households in Mbeya region was 372,844. The largest number of agriculture households was in Mbozi (103,486) followed by Rungwe (67,323), Mbeya Rural (53,865), Mbarali (42,718), Chunya (38,262) Kyela (34,192), Ileje (25,819) and Mbeya Urban (7,180) (Map 3.1). The highest density of households was found in

Mbeya Urban (838km² 10%) and Rungwe 60km² 14%) (Map 3.2). Most households (232,209, 62.3%) were involved in growing crops only, 1,195 (0.3%) rearing livestock only and 139,441 (37.4%) were involved in crop production as well as livestock keeping. No pastoralists were found in the region (Chart 3.1) (Map 3.3, 3.4, 3.5 and 3.6).



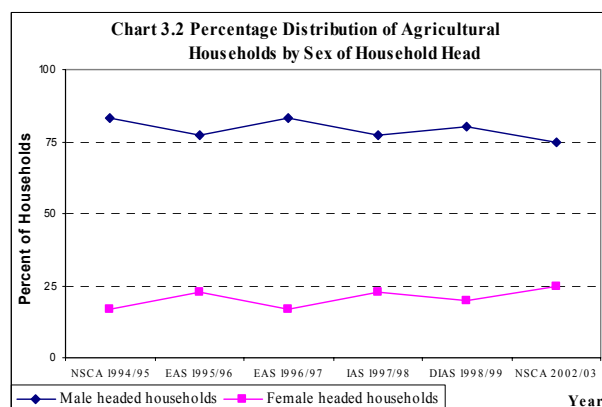
Livelihood Activities/Source of Income

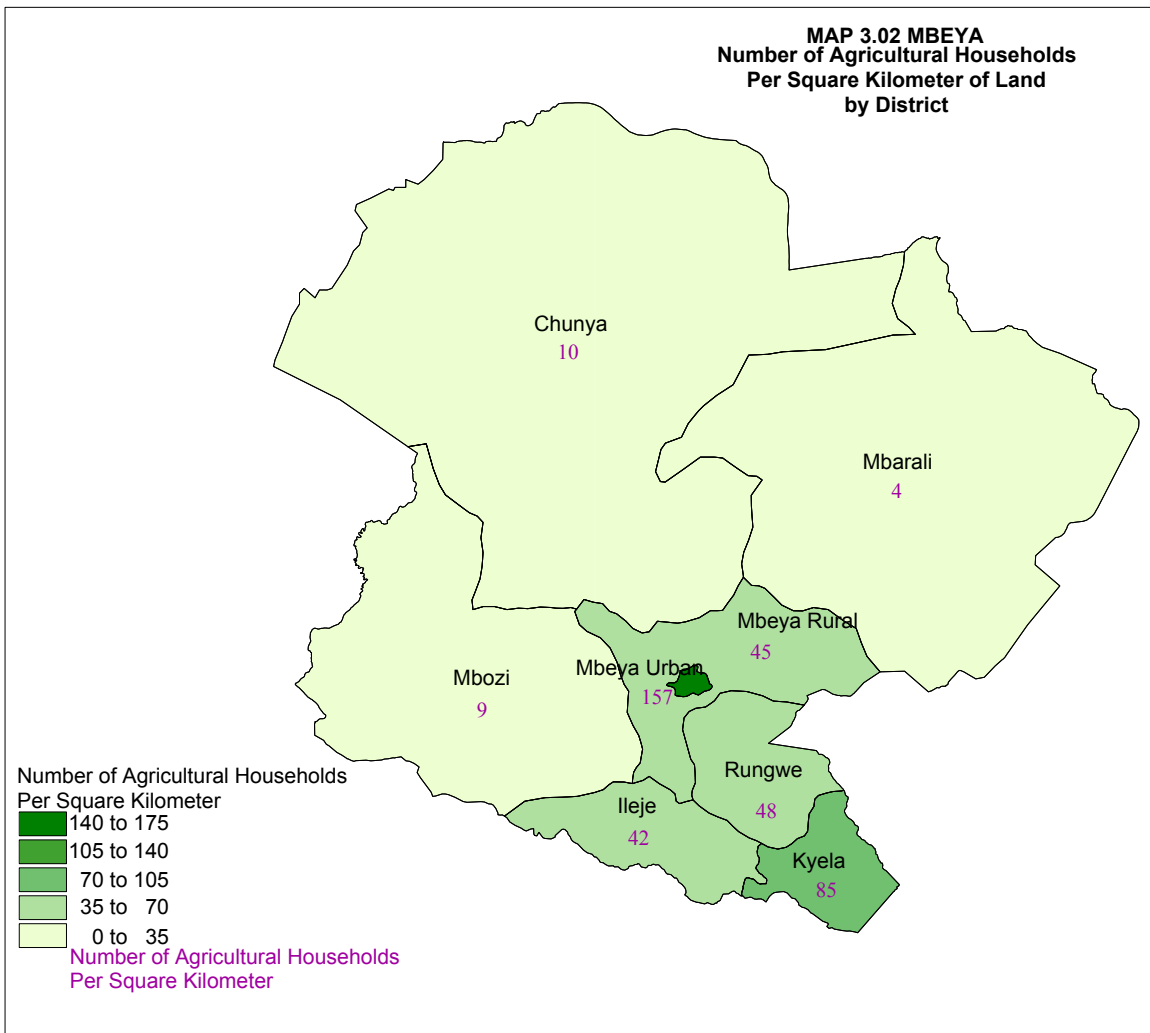
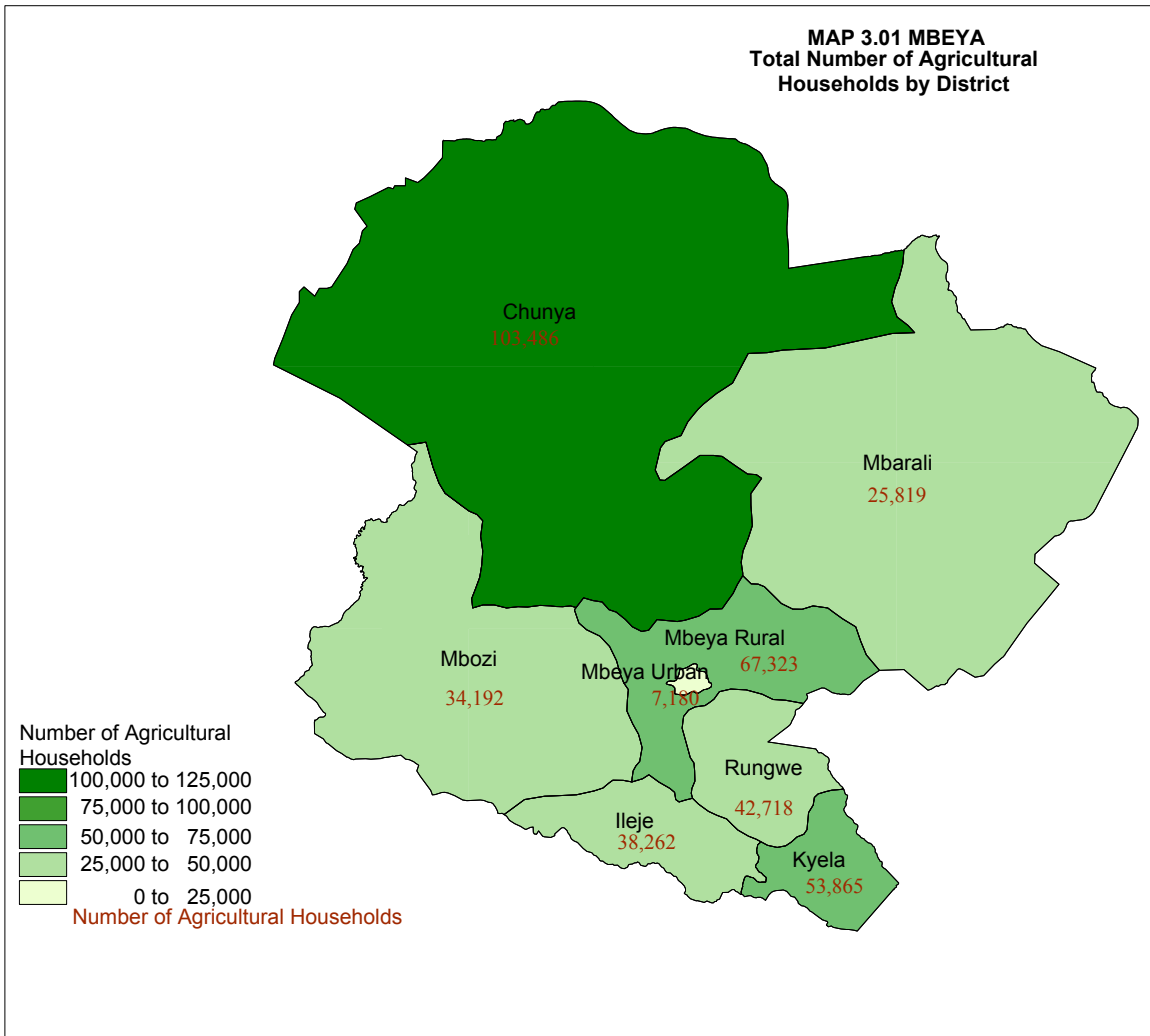
The census results for Mbeya region indicates that all of the agricultural households ranked annual crop farming as an activity that provides most of their cash income followed by off farm Income, permanent crop farming, livestock keeping/herding tree/forest resources, fishing/hunting and remittances (Table 3.1).

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	1	6	3	2	5	7	4
Mbeya Rural	1	6	5	2	7	4	3
Kyela	1	2	3	4	6	7	5
Rungwe	1	2	3	5	7	4	6
Ileje	1	2	3	4	6	7	5
Mbozi	1	4	5	3	6	7	2
Mbarali	1	7	5	2	6	4	3
Mbeya Urban	1	5	4	2	6	7	3
Total	1	3	4	2	7	6	5

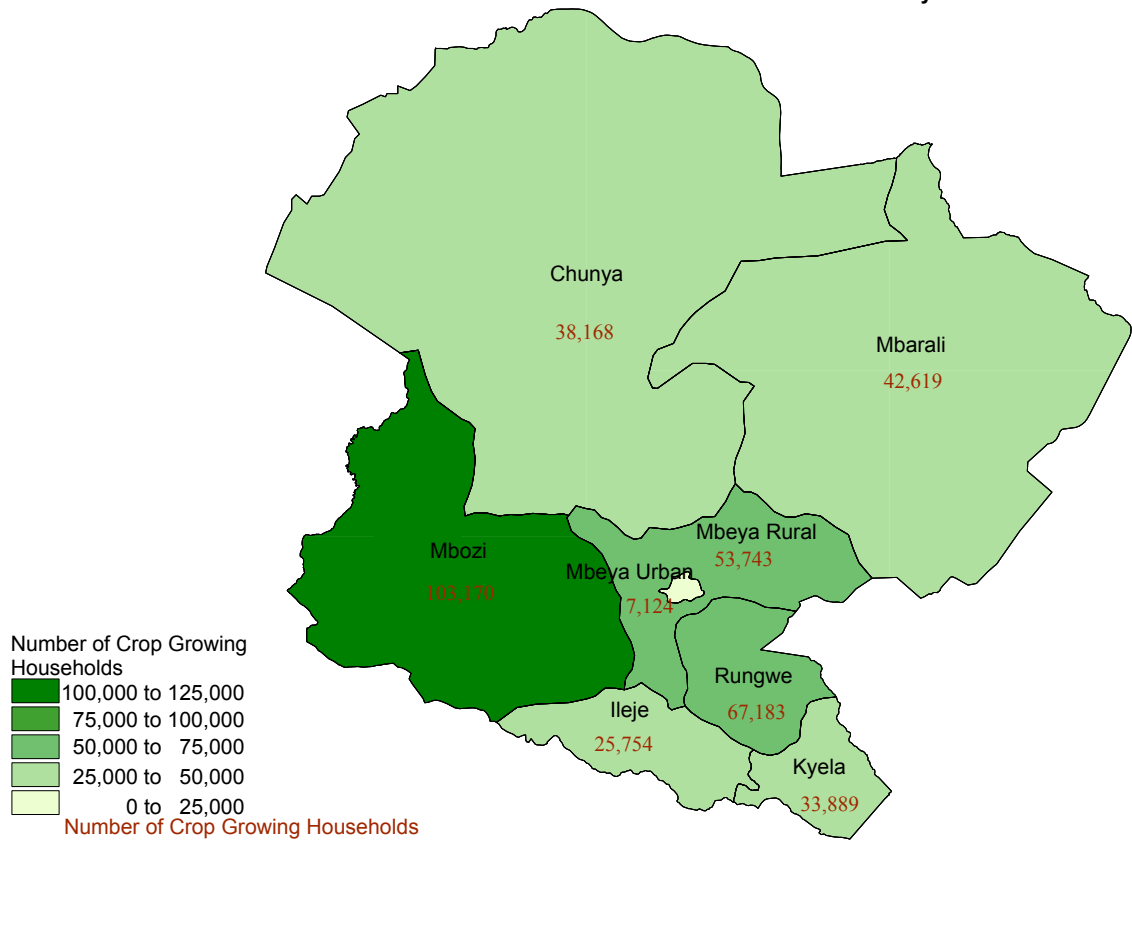
Sex and Age of Head of Households

The number of male-headed agricultural households in Mbeya region was 278,613 (75% of the total regional agricultural households) whilst the female-headed households were 94,232 (25% of the total regional agricultural households). The mean age of household heads was 44 years (43 years for male heads and 48 years for female heads) (Chart 3.2) The percentage

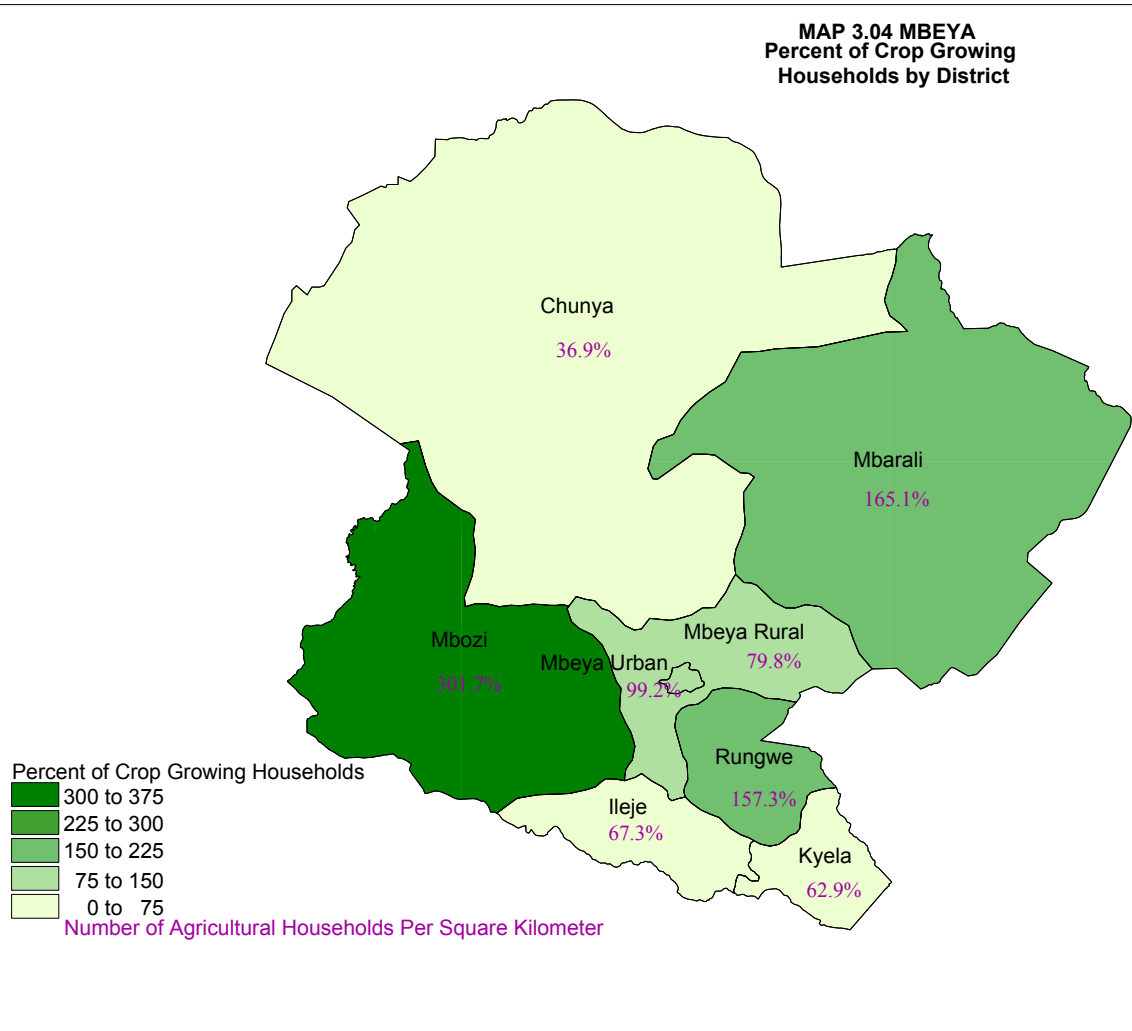




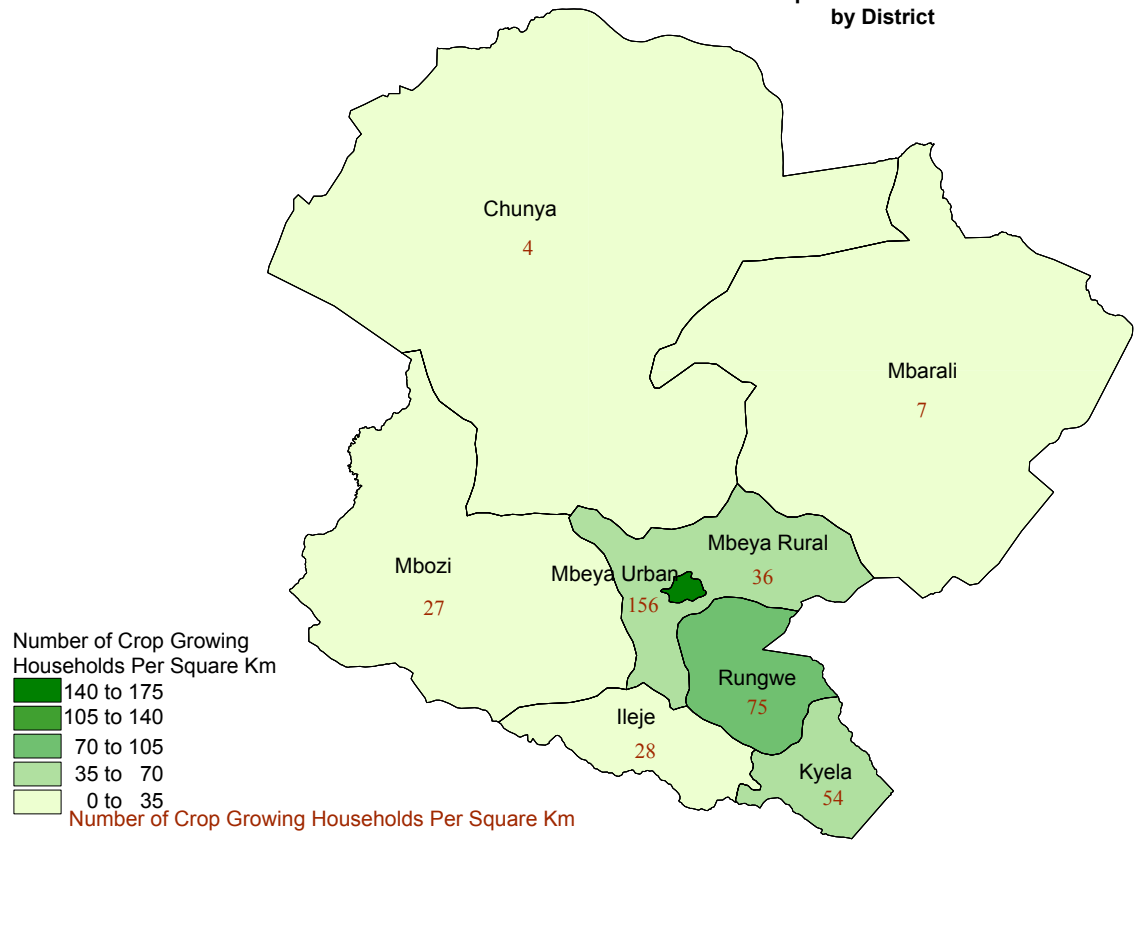
MAP 3.03 MBEYA
Number of Crop Growing
Households by District



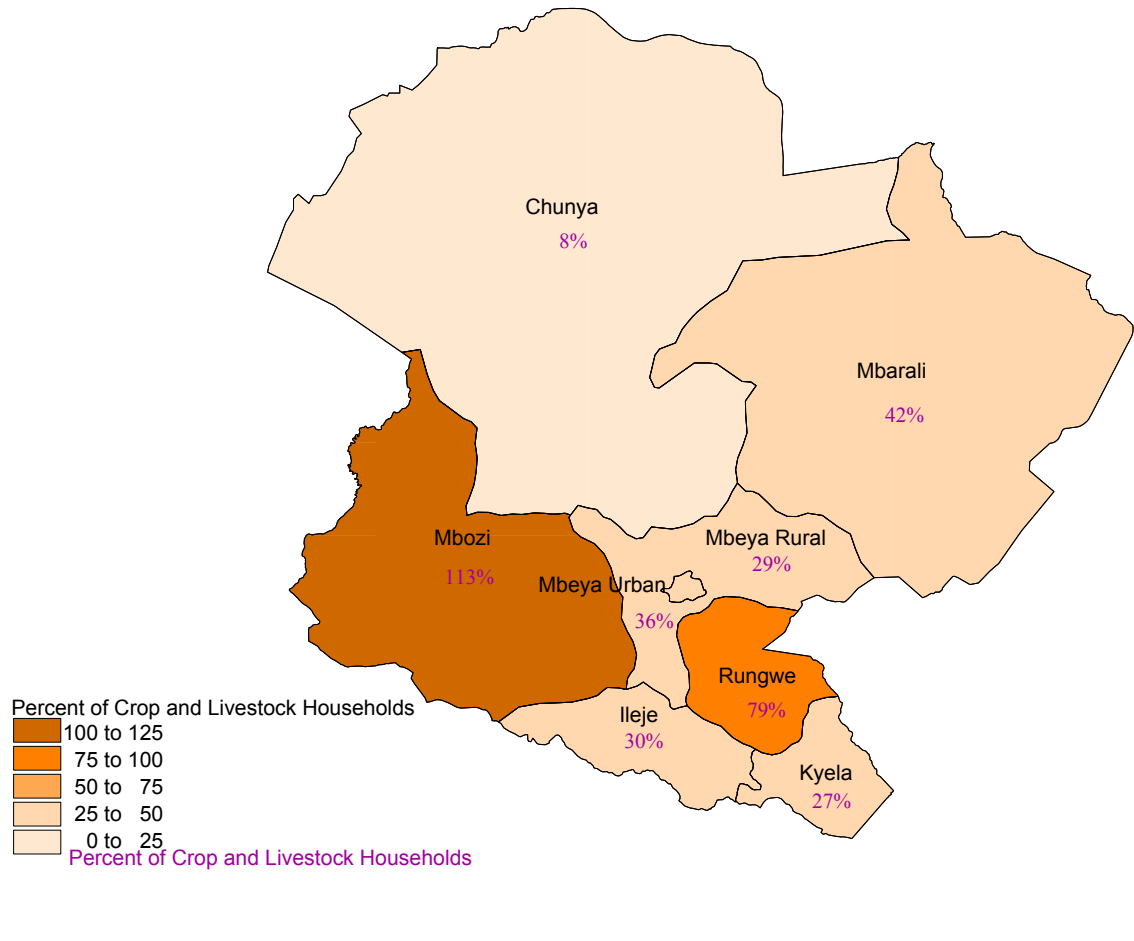
MAP 3.04 MBEYA
Percent of Crop Growing
Households by District



MAP 3.05 MBEYA
Number of Crop Growing Households
Per Square Kilometer of Land
by District



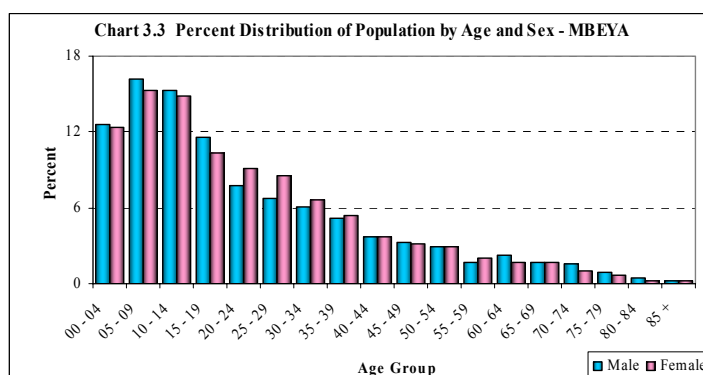
MAP 3.06 MBEYA
Percent of Crop and Livestock
Households by District



trend for six censuses/surveys years shows that there has not been any significant change in the distribution of agricultural households between male and female headed households.

3.1.4 Number and Age of Household Members

Mbeya region had a total rural agricultural population of 1,608,781 of which 780,102 (48%) were males and 828,679 (52%) were females. Whereas age group 0-14 constituted 43 percent of the total rural agricultural population, age group 15-64 (active population) accounted for 52 percent of the rural agricultural population. Mbeya region had an average household size of 4.3 persons per households with Rungwe district having the lowest household size of 4 people per households (Chart 3.3).



3.1.5 Level of Education

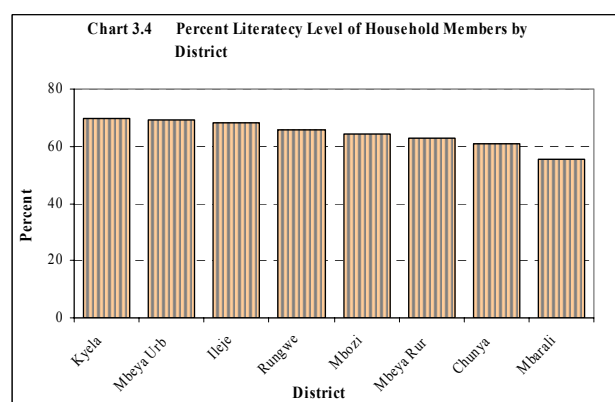
In order to obtain information on the level of education, information on literacy and education attainment were obtained for all persons aged five years and above in all households.

Literacy

The information on literacy level for family members aged five years and above was obtained by asking individual private households if their respective family members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy was based on the ability to read and write Swahili, English or both.

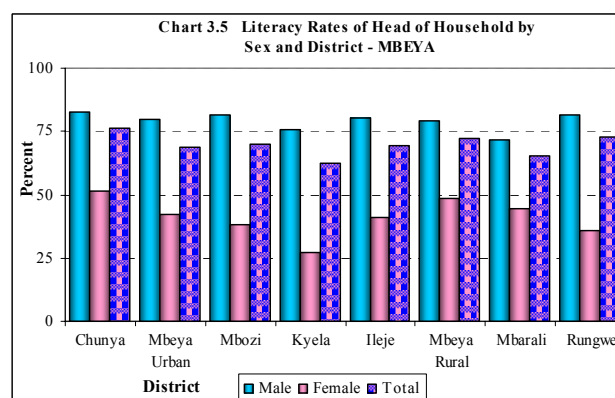
Literacy Level for Household Members

Mbeya region had a total literacy rate of 68 percent. The highest literacy rate was found in Kyela district (70%) followed by Mbeya Urban district (69%), Ileje (68%), Rungwe (66%), Mbozi (64%) and Mbeya Rural (63%). Mbarali and Chunya districts had the lowest literacy rates of 56 and 61 percent respectively (Chart 3.4).



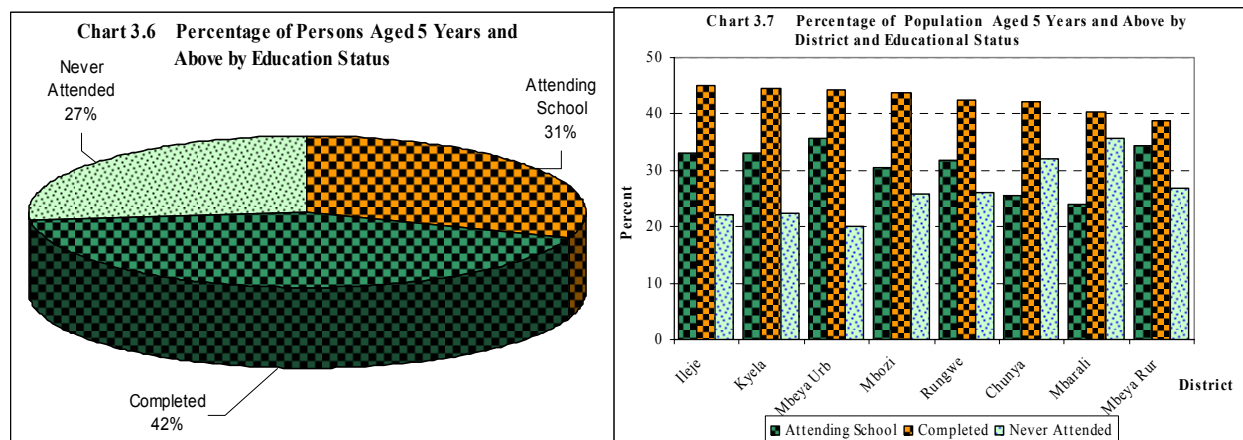
Literacy Rates for Heads of Households

The literacy rate for the heads of households in the region was 69.4 percent. The literacy rate for the male head was 79 and 21 percent for the female head. The literacy rate of male heads was higher than that of females heads in all districts. The district with the highest literacy rate for heads of households was Mbozi (74.4%) followed by Mbeya Urban (73%), Chunya (71%), Mbeya Rural (70%), Kyela (69%), Ileje (69%), Mbarali (67%) and Rungwe (62%) (Chart 3.5).



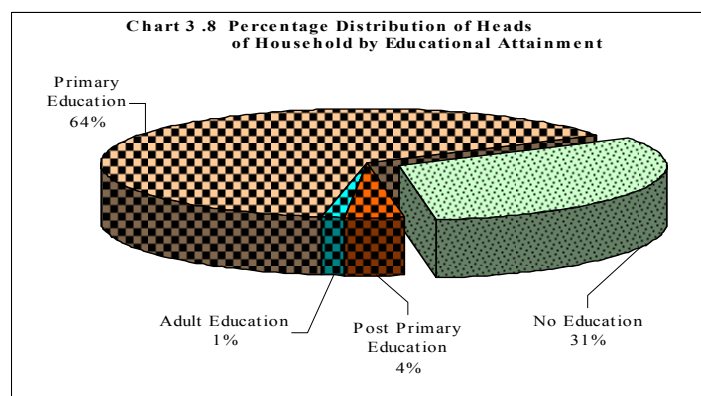
Educational Status

Information on educational status was collected from individual agricultural households. The results show that 42.4 percent of members of agricultural households aged 5 years and above in the region had completed different levels of education and 30.6 percent were still attending school. Those who have never attended school were 27.1 percent (Chart 3.6).



Agricultural households in Ileje district had the highest percentage (44.9%) of population aged 5 years and above who had completed different levels of education. This was followed by Kyela (44.5%), Mbeya Urban (44.2%), Mbozi (43.6%), Rungwe and Chunya districts had (42.3%) each. Mbeya Rural and Mbarali districts had the lowest percentages of 38.8 and 40.3 respectively.

The number of heads of agricultural households with formal education in Mbeya region was 251,109 (68%), those without formal education were 116,395 (31%) and those with only adult education were 5,340 (1%). The majority of heads of agricultural households (64%) had primary level education whereas only 4 percent had post primary education.

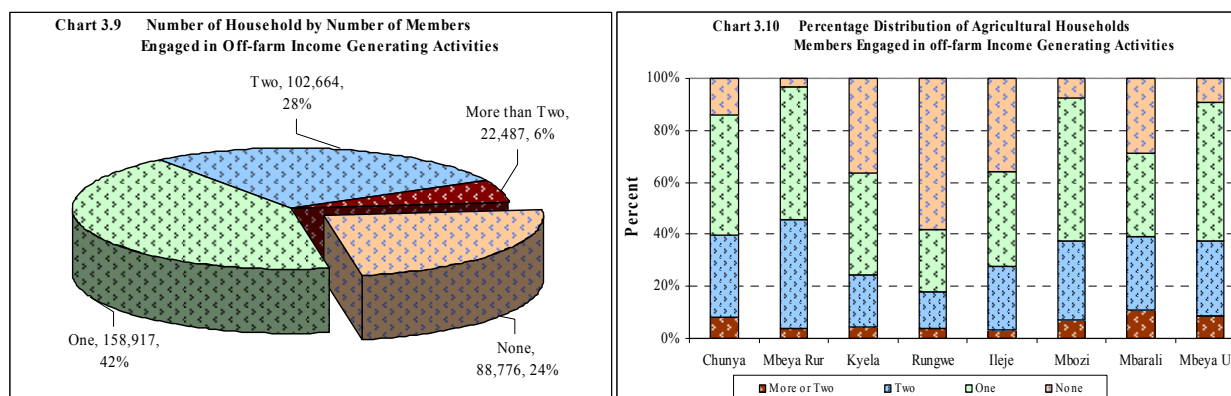


With regard to the heads of agricultural households with primary or secondary education in Mbeya region, Mbozi district had the highest percentage (69% for primary and 3% for secondary). This was followed by Chunya (66% primary and 3% secondary), Kyela (63% primary and 4% secondary) and Ileje and Mbeya Urban had (62% primary) each and (2% and 7% secondary respectively). Rungwe had the lowest percentage of heads of agricultural households with primary education (59%) and secondary education (2%) (Chart 3.8).

3.1.6 Off-farm Income

Off-farm income refers to cash generated from non-agricultural activities. This can be either from permanent employment (i.e., government, private sector or other), temporary employment or labourers. It also includes cash generated from working on farms belonging to other farmers. Off-farm income is important amongst agriculture households in Mbeya with 76.2 percent of households having at least one member with off-farm income. In Mbeya region there was 158,917

households (56%) with only one household member engaged in off-farm income generating activity, 102,665 households (36%) had two members involved in off-farm income generating activities and 22,487 households (8%) had more than two members involved in off-farm income generating activities.



Mbeya Rural district had the highest percentage of agriculture households with off-farm income (over 90% of total agriculture households in the district). Other districts with high percent of agriculture households with off-farm income were Mbozi (92%), Mbeya Urban 91%), Chunya (86%) and Mbarali (71%). Ileje and Kyela districts had (64%) of households each with off-farm income. Rungwe district had the lowest percentage (42%) of households with off-farm income.

3.2 Land Use

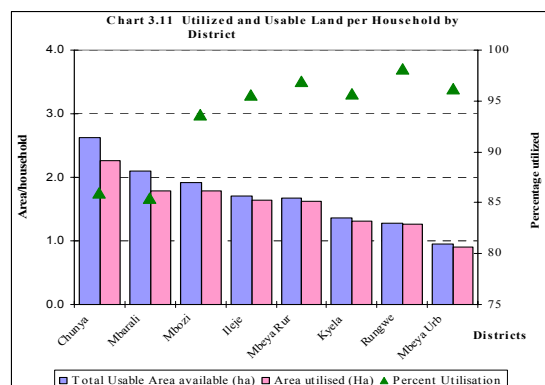
Land area and planted area are two different types of area measurements. Land area refers to the physical area of land and is the same regardless of the number of crops planted on the land in one year. Planted area is the total area of crops planted in a year and the area is summed if there were more than one crop on the same land per year. A number of terms are used in this section which requires defining for clarification as follows:

Land available refers to the area of land that has been allocated to smallholders through customary law, official title or other forms of ownership. Land available does NOT mean the total area of land that is designated as agriculture land in the country; however it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused agriculture designated land.

Usable land refers to the available land minus the land that cannot be used e.g. bare rock, shallow soils, steep slopes, swamp areas etc. It does however include un-cleared bush, Utilised land refers to the land that was used during the year.

3.2.1 Area of Land Utilised

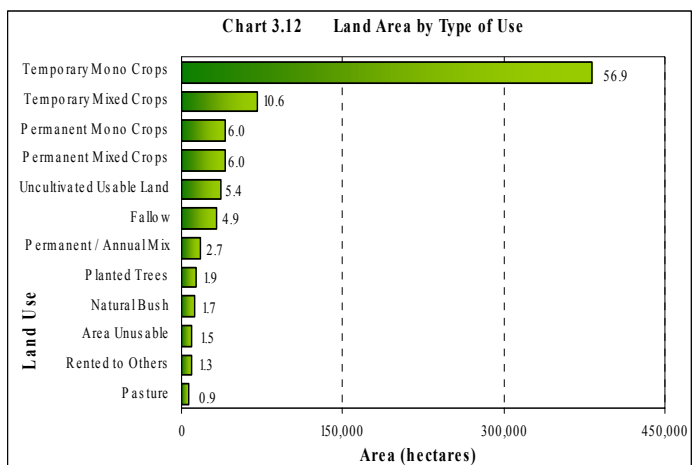
The total area of land available to smallholders was 672,227 ha. The regional average land area utilised for agriculture per household was only 1.5 ha. This figure is below the national average which is estimated at 2.0 hectares. Of the total land available to smallholders 85 percent was utilised. Only 15 percent of land available to smallholders was not utilized. (Chart 3.11).



Differences in land area utilised per household exist between districts with Chunya, utilizing between 2.3 hectares and (Mbarali and Mbozi) utilising 1.8 hectares per household each. The smallest land area utilised per household was found in Mbeya Urban district with (0.9 ha) per household. The percentage utilized of the usable land per household was highest in Rungwe (98%) and lowest in Mbarali (85%) (Chart 3.11 and Map 3.7).

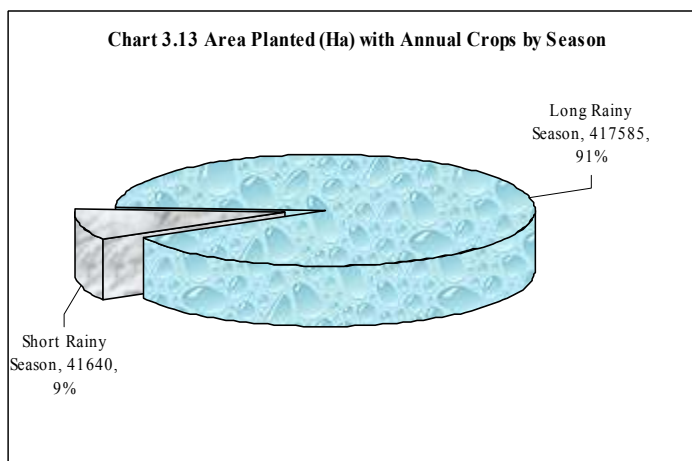
3.2.2 Types of Land Use

The area of land under temporary monocrop was 382,607 hectares (56.9% of the total land available to smallholders in Mbeya), followed by temporary mixed crops (71,336 ha, 10.6%), permanent mono crop (40,612 ha, 6.1%), permanent mixed crop (40,475 ha, 6.0%), uncultivated land (36,515 ha, 5.4%), fallow (32,723 ha, 4.9%), permanent/annual mix (18,111 ha, 2.7%). Area planted with trees (13,078 ha, 1.9%), area under natural bush (11,629 ha, 1.7%), unusable land (9,854 ha, 1.5%), area rented to others (8,915 ha, 1.3%), and area under pasture (6,372 ha, 0.9%).



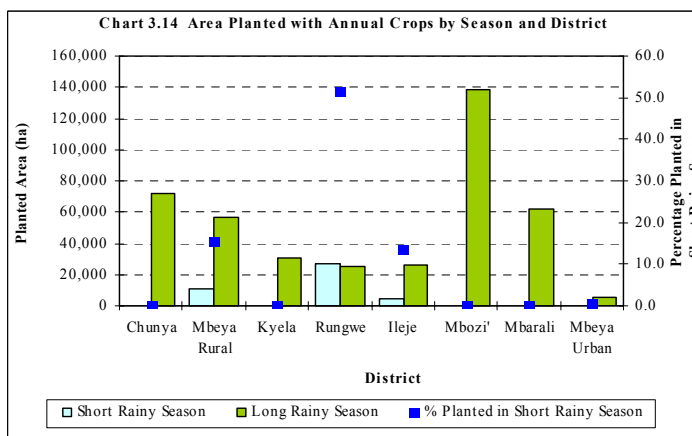
3.3 Annual Crop and Vegetable Production

Mbeya region has two rainy seasons. The short rainy season (October to November) which is not very much important for crop production and the long rainy season (April to May). The quantity of crops produced in both seasons will be used as a base for comparison with the past surveys and censuses.



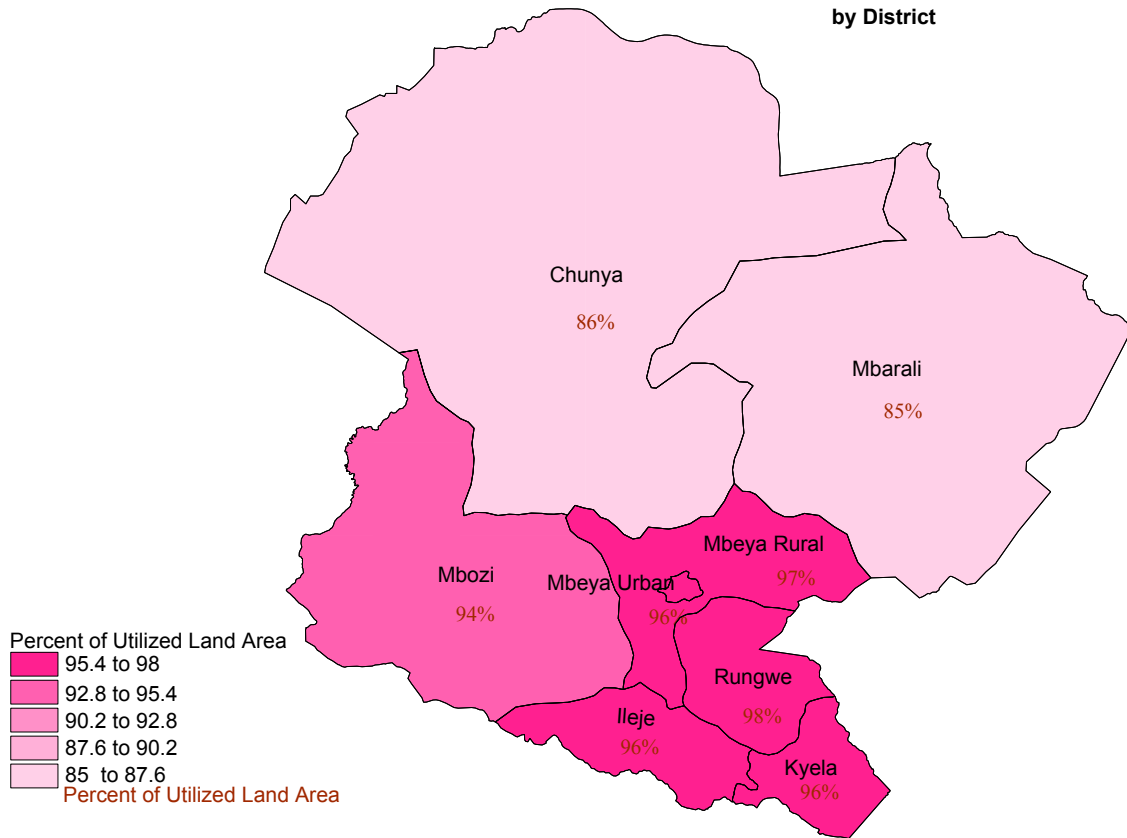
3.3.1 Area Planted

The area planted with annual crops and vegetables was 459,226 hectares out of which 41,640 hectares (9.1%) were planted during dry season and 417,586 hectares (90.9%) during wet season (Chart 3.13). The average area planted per household during the short and long rainy seasons was 0.69 and 1.22 ha respectively. The district with the largest area planted per household (area planted divided by the number of households in the main growing season based on the assumption that households that grow

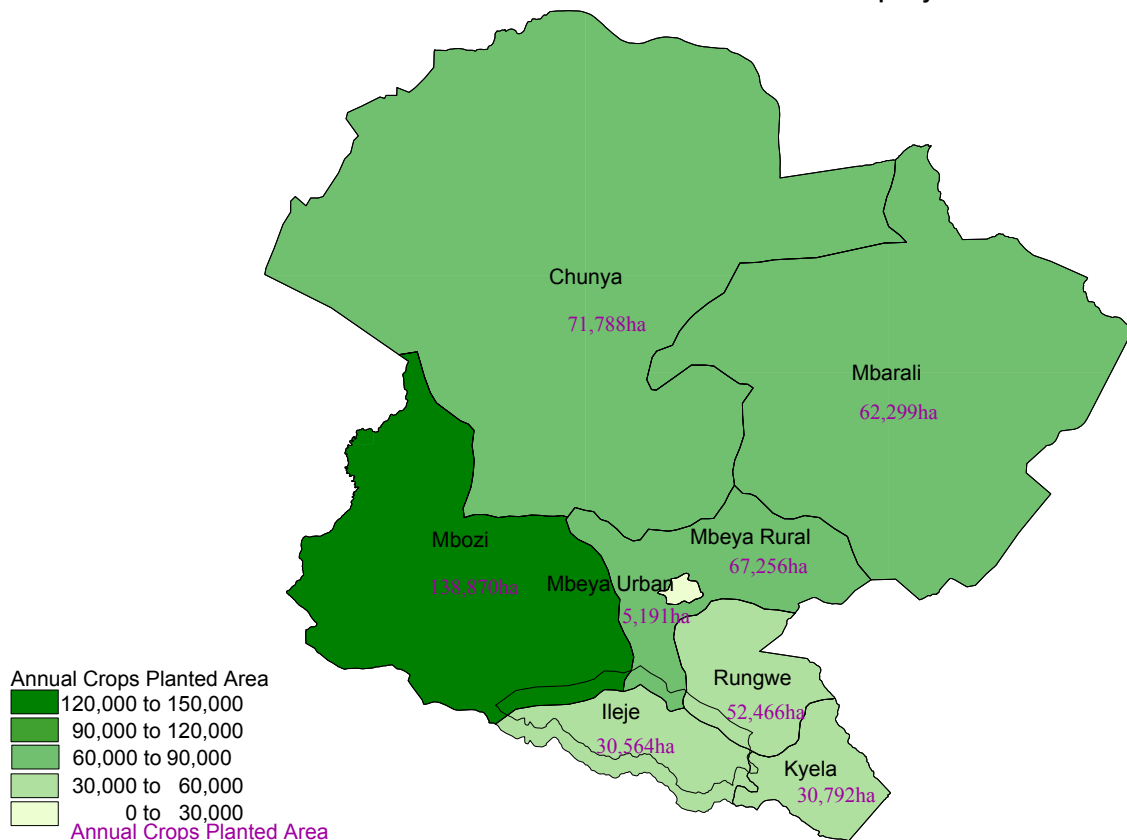


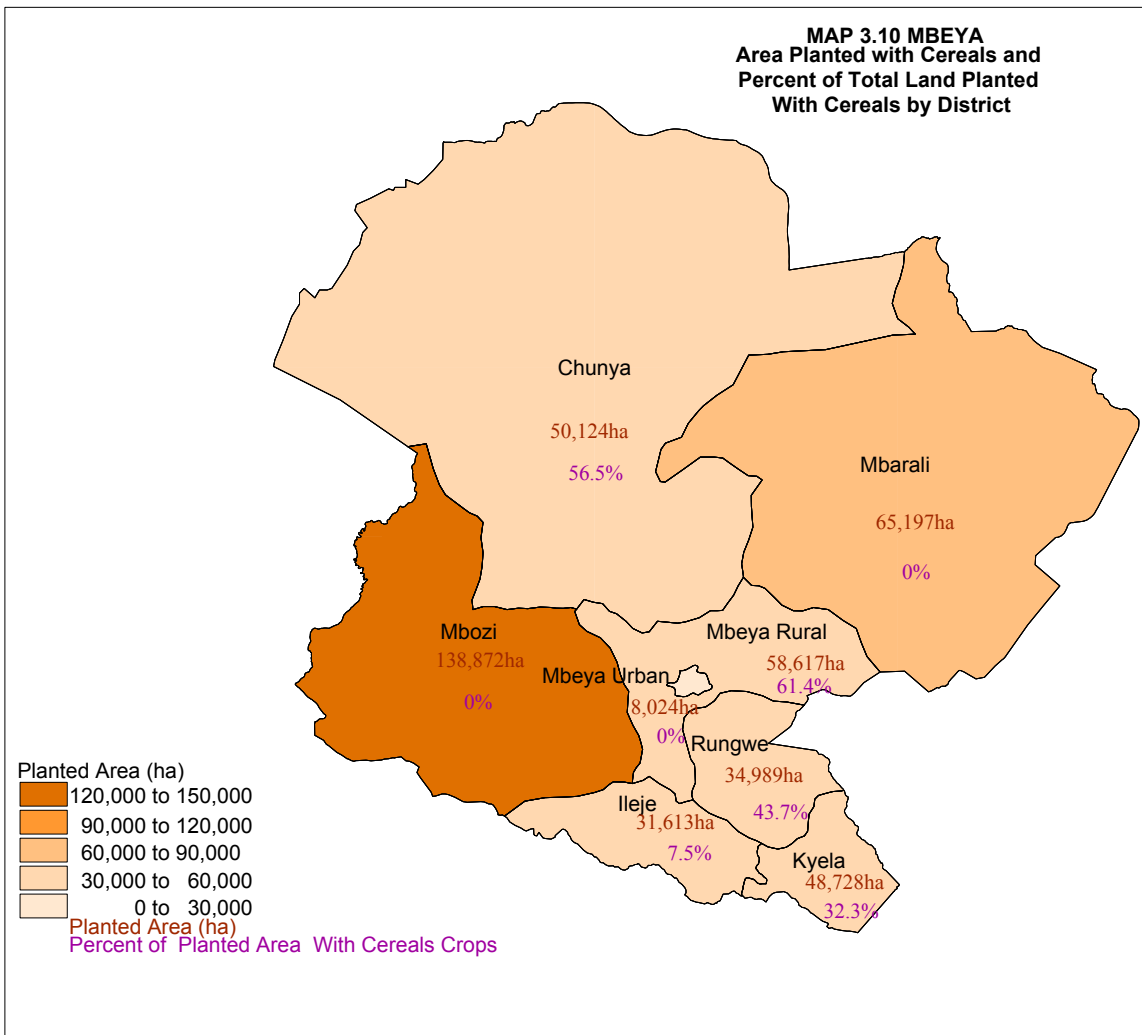
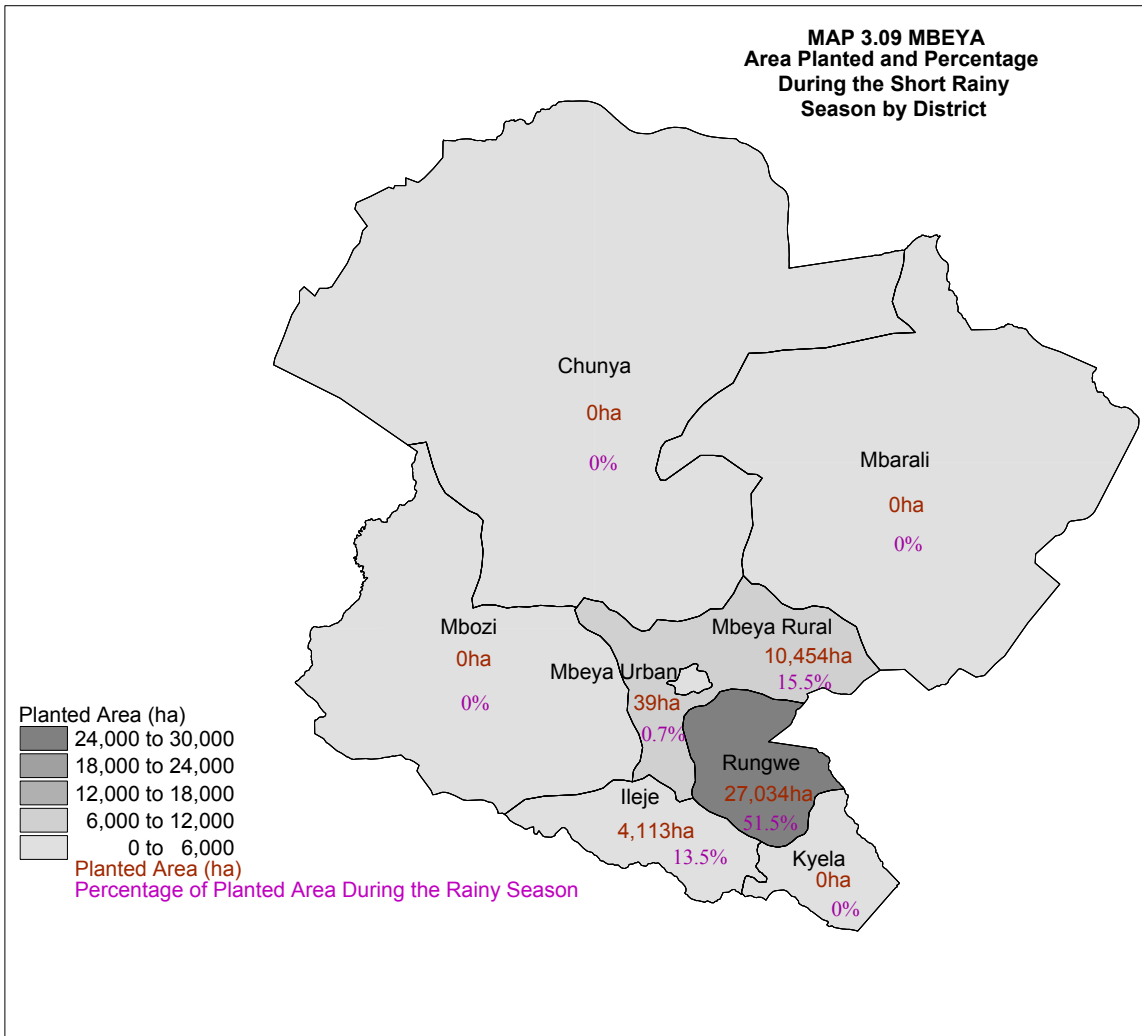
in the off season will also grow in the main season) was Chunya (1.88 ha) followed by Mbarali (1.47 ha), Mbeya Rural, (1.36 ha), Mbozi (1.35 ha), Ileje (1.20ha), Rungwe (1.05ha), Kyela (0.92ha) and Mbeya Rural (0.73ha). rage area planted

MAP 3.07 MBEYA
Utilized Land Area Expressed as
a Percent of Available Land
by District



MAP 3.08 MBEYA
Total Planted Area With
Annual Crops by District

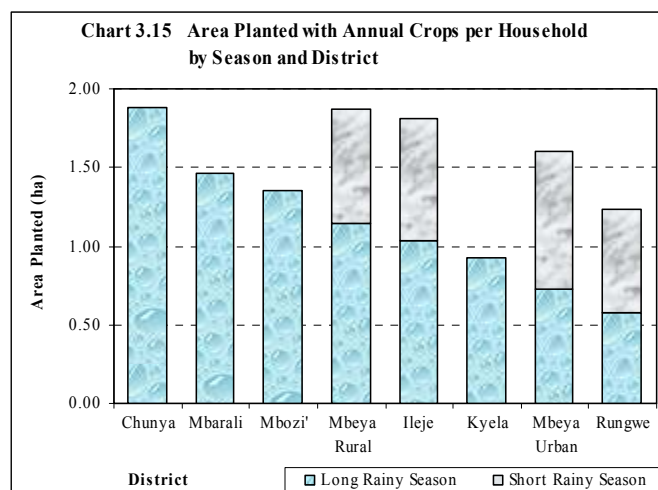




was Rungwe (0.62ha). Mbeya Urban and Rungwe districts the average area planted during the dry season is higher than that of the wet season the reverse is not true in the rest of the two districts that had dry season (Chart 3.15 and Map 3.8).

The planted area occupied by cereals was 328,941 ha (71.6% of the total area planted with annuals). This was followed by pulses (65,043 hectares, 14.2%), oil seeds & oil nuts (30,141 hectares, 6.6%), roots and tubers (27,141 hectares, 5.9%), fruit and vegetables (3,982 hectares, 0.9%), and cash Crops (3,979 hectares, 0.9%).

The average area planted per household during the wet season in Mbeya region was 1.22 hectares, however, there were large district differences. Chunya had the largest planted area per household (1.88 ha) followed by Mbarali (1.47 ha) and Mbozi (1.35 ha). The smallest planted area per household during the wet season was in Rungwe (0.62 ha). In Rungwe district the area planted in the short rainy season represents 51.5 percent of the total planted area. (Chart 3.15 and Map 3.9).

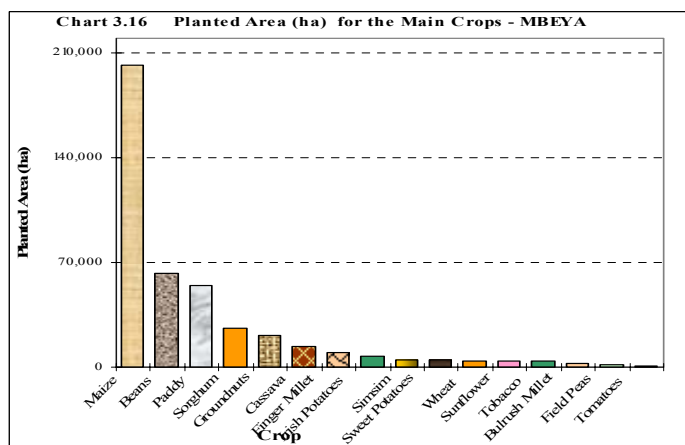


Analysis of the Most Important Crops

Results on crop production are presented in two different sections. The first section compares the importance of each crop regardless of whether they are annual or permanent. The second section contains a more detailed analysis on production based on crop types.

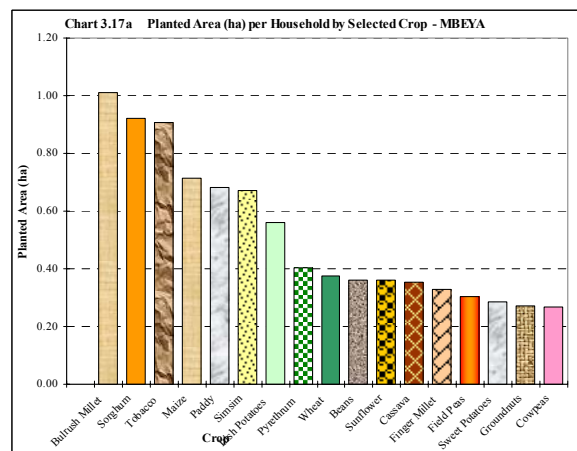
3.3.2 Crop Importance

Maize is the dominant annual crop grown in Mbeya region and it had a planted area 3.7 times greater than beans, which had the second largest planted area. The area planted with maize constitutes 47 percent of the total area planted with annual crops in the region. Other crops in order of their importance (based on area planted) are beans, paddy, sorghum, groundnuts, cassava, finger millet, Irish potatoes, wheat, sunflower, tobacco, bulrush millet, field peas and tomatoes (Chart 3.16). Households that grew maize, beans, paddy and sorghum have larger planted areas per household than for other crops (Chart 3.17a).



3.3.3 Crop Types

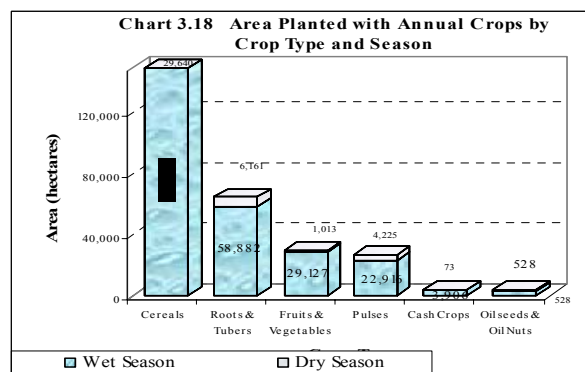
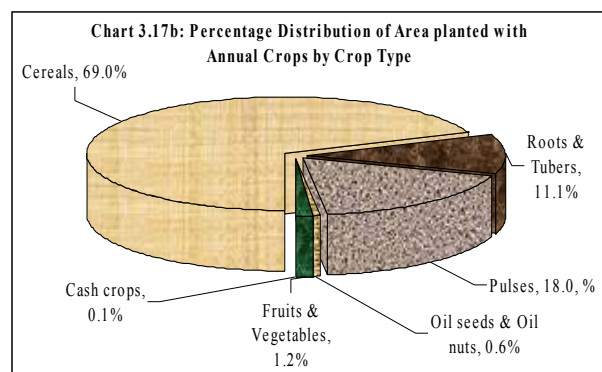
Cereals are the main crops grown in Mbeya region. The area planted with cereals was 328,941 ha (71.6% of the total planted area for annual crops), followed by pulses with 65,043 ha (14.2%), oil seeds & oil nuts 30,141 ha (6.6%). root and



tubers 27,141 ha (5.9%), fruit and vegetables 3,982 ha (0.9%) and annual cash crops, mainly consisting of pyrethrum and tobacco have the least planted area of about 3,979 ha (0.9%) (Chart 3.17b).

Cereals and pulses were the dominant crops in both seasons and other crop types were less important in comparison.

NOTE: There is little difference in the proportions of the different crop types grown between seasons and because the short rainy season production was very small compared to the long rainy season it is inappropriate to make detailed comparisons between the two seasons (Chart 3.18). However, the area planted and production of various crops are the combination of both short and long rainy seasons respectively



3.3.4 Cereal Crop Production

The total production of cereals was 382,964 tonnes. Maize was the dominant cereal crop at 286,213 tonnes which was 74.7 percent of total cereal crop production, followed by paddy (16.4%) sorghum (5.5%), finger millet (1.8%), wheat (1.2%), bulrush millet (0.3%) and barley (0.02%).

Mbozi district had the largest planted area of Cereals in the region (91,979ha) followed by Mbarali, 55,802 ha), Chunya (54,461 ha), Mbeya Rural 44,724 ha), Rungwe (32,678 ha) Kyela (27,933 ha), Ileje (17,709 ha), and Mbeya Urban (3,637 ha) (Table 3.2b and Map 3.10).

The total area planted with cereals in both seasons was 328,941. The long rainy season accounted for 91 percent of the total area planted with cereals. (Table 3.2).

Table 3.2 Area, Production and Yield of Cereal Crops by Season

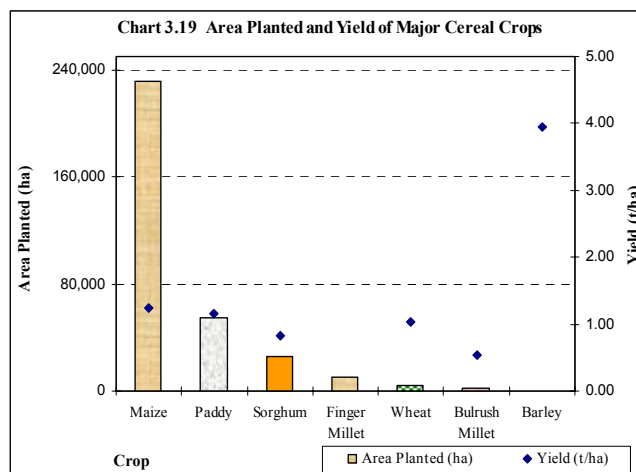
Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tonnes)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tonnes)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tonnes)	Yield (kg/ha)
Maize	29,417	41,305	1.40	202,326	244,907	1.21	231,743	286,213	1.24
Paddy	0	0	0.00	54,743	62,780	1.15	54,743	62,780	1.15
Sorghum	0	0	0.00	25,953	21,214	0.82	25,953	21,214	0.82
Bulrush Millet	0	0	0.00	2,162	1,183	0.55	2,162	1,183	0.55
Finger Millet	200	107	0.54	9,828	6,940	0.71	10,028	7,047	0.70
Wheat	0	0	0	4,289	4,436	1.03	4,289	4,436	1.03
Barley	23	91	3.952	0	0	0	23	91	3.95
Total	29,640	41,504		299,301	341,460		328,941	382,964	

Table 3.2b Area, Production and Yield of Cereal Crops

	Long Rainy Season			Short Rainy Season			Total		
	Planted Area (ha)	Quantity (t)	Yield (t/ha)	Planted Area (ha)	Quantity (t)	Yield (t/ha)	Planted Area (ha)	Quantity (t)	Yield (t/ha)
Chunya	54,461	45,224	0.83				54,461	45,224	0.83
Mbeya Rural	36,995	43,247	1.17	7,730	7,730	1.00	44,724	50,977	1.14
Kyela	27,933	26,850	0.96				27,933	26,850	0.96
Rungwe	13,298	15,054	1.13	19,380	19,380	1.00	32,678	34,433	1.05
Ileje	15,196	16,745	1.10	2,513	2,513	1.00	17,709	19,258	1.09
Mbozi	91,979	134,965	1.47				91,979	134,965	1.47
Mbarali	55,802	52,371	0.94				55,802	52,371	0.94
Mbeya Urban	3,637	7,003	1.93	18	18	1.00	3,655	7,021	1.92
	299,301	341,460		29,640	29,640		328,941	371,100	

The area planted with maize was dominant and it represented 70.5 percent of the total area planted with to cereal crops, and was followed by paddy (16.6%), sorghum (7.9%), finger millet (3.0%), wheat (1.3%), bulrush millet (0.66%) and barley (0.01%).

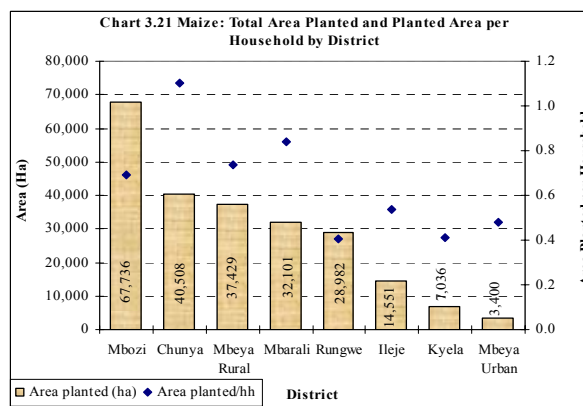
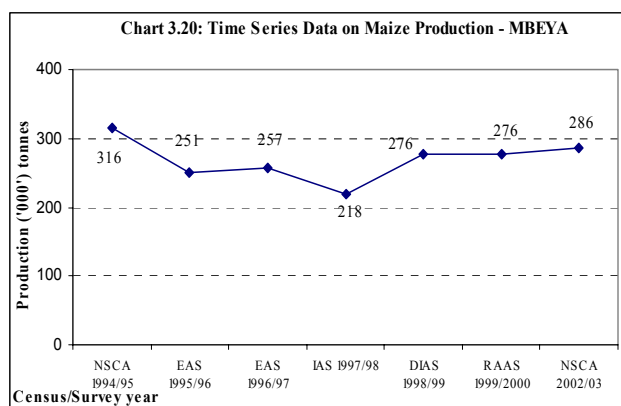
The yield of maize was 1,240 kg/ha, paddy (1,150 kg/ha), wheat (1,030 kg/ha) sorghum (820 kg/ha), finger millet (700 kg/ha), bulrush millet (550 kg/ha) and barley (395 kg/ha) (Chart 3.19).



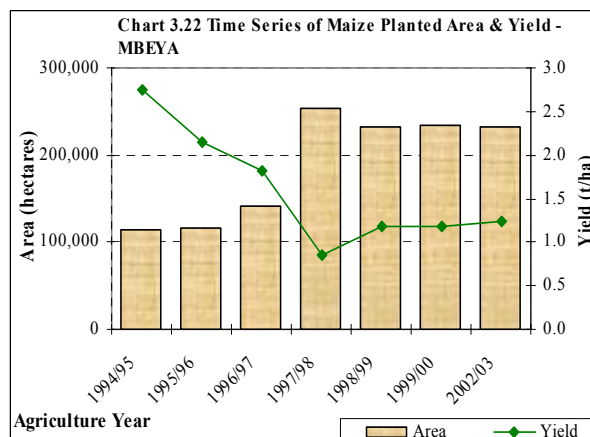
3.4.1 Maize

Maize dominated the production of cereals in the region. The number of households growing maize in Mbeya region during the long and short rainy season was 342,205 (91.8% of the total crop growing households in the region). The total production of maize was 286,213 tonnes from a planted area of 231,743 hectares resulting in a yield of (1.24 t/ha). (Chart 3.20) indicates maize production trend (in thousand metric tonnes) for the combined wet and dry seasons. There was a sharp increase in maize production (26.6%) over the period of 1998 to 1999 after which the production remained almost constant up to 2003. The average area planted with maize per maize growing household was 0.7 hectares; however it ranged from 0.4 hectares in both Rungwe and Kyela districts to 1 hectares in Chunya district (Map 3.12) Chart 3.21).

Mbozi district had the largest area of maize (67,736 ha) followed by Chunya (40,508 ha), Mbeya Rural (37,429 ha), Mbarali (32,101 ha), Rungwe 28,982 ha, Ileje (14,551 ha), Kyela (7,036 ha) and Mbeya Urban (3,400 ha) (Chart 3.21 and Map 3.11).



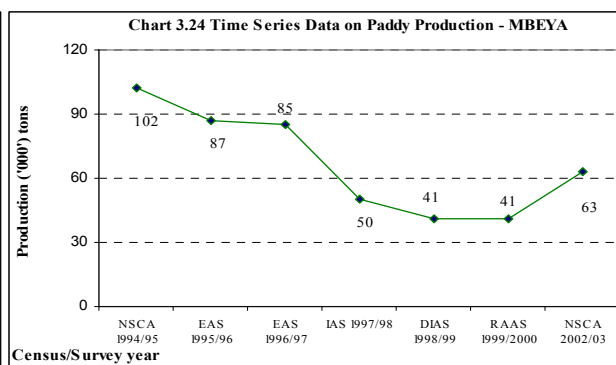
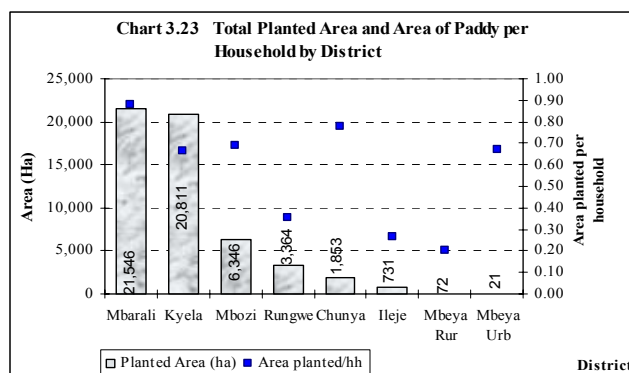
There has been little change in production over the since 1995 with the quantity of maize ranging from 218,000 to 316,000 tonnes (Charts 3.20). Charts 3.21 and 3.22 show that, whilst the area planted increased from 1998 the yield declined sharply and has remained at this low level. The area planted with maize remained almost constant over the period from 1994 and 1995 after which the area under production expanded gradually until 2000 and the area has remained constant ever since.



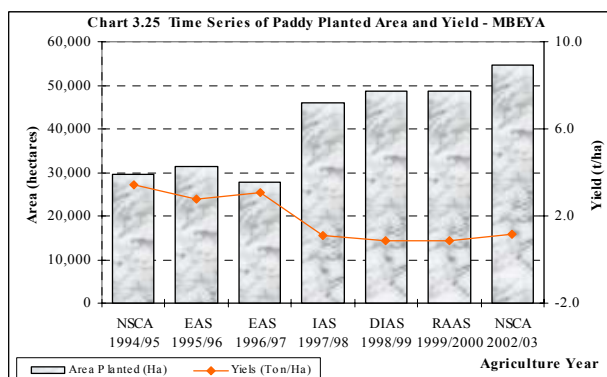
3.4.2 Paddy

Paddy was the second most important cereal crop in the region in terms of planted area. The number of households that grew paddy in Mbeya region during the long rainy season was 80,091. This represented 23.3 percent of the total households

growing annual crops in Mbeya region in the long rainy season. The total production of paddy was 62,780 tonnes from a planted area of 54,743 hectares resulting in a yield of 1.15 t/ha. The district with the largest area planted with Paddy was Mbarali (21,546 ha) followed by Kyela (20,811 ha), Mbozi (6,346 ha), Rungwe (3,364 ha), Chunya (1,853 ha), Ileje (731 ha), Mbeya Rural (72 ha) and Mbeya Urban (21 ha) (Map 3.13). There are small variations in the average area planted per crop growing household among the districts ranging from 0.20 ha in Mbeya Rural to 0.88 ha in Mbarali (Chart 3.23 and Map 3.14)

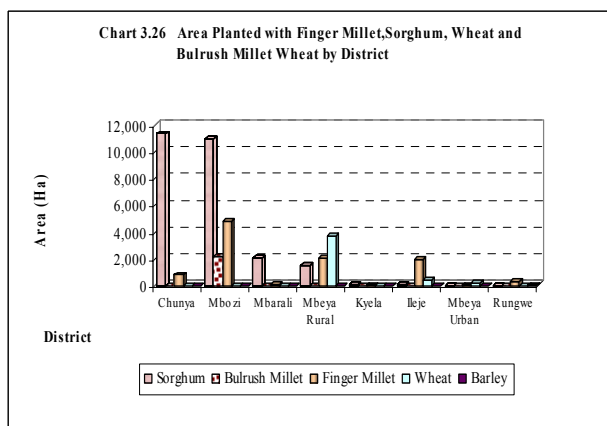


The production of paddy in the region has been gradually declining since 1995 from 102,000 tonnes in 1994/95 to 63,000 tonnes in 1999/2000. Charts 3.24 and 3.25 show that whilst the planted area of paddy increased, the productivity has declined resulting in a drop in the production of paddy.

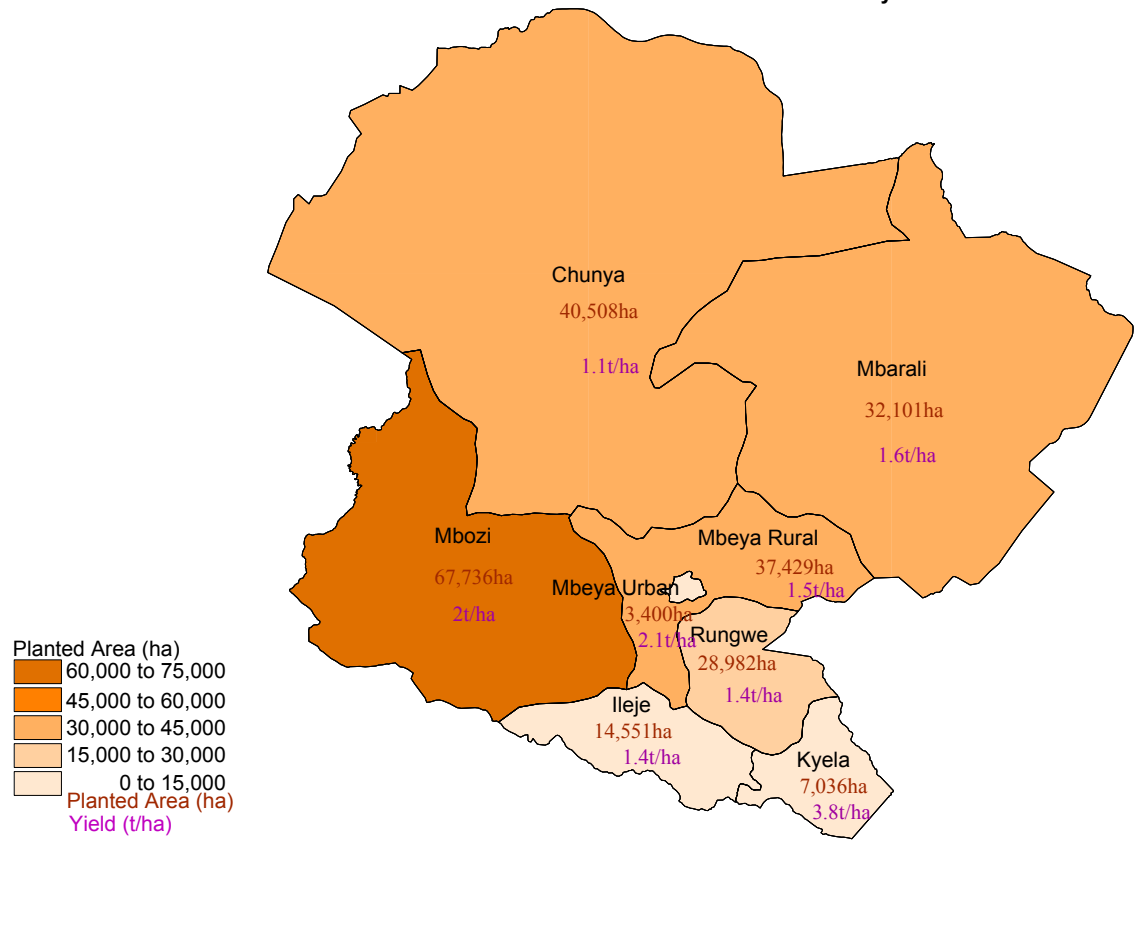


3.4.3 Other Cereals

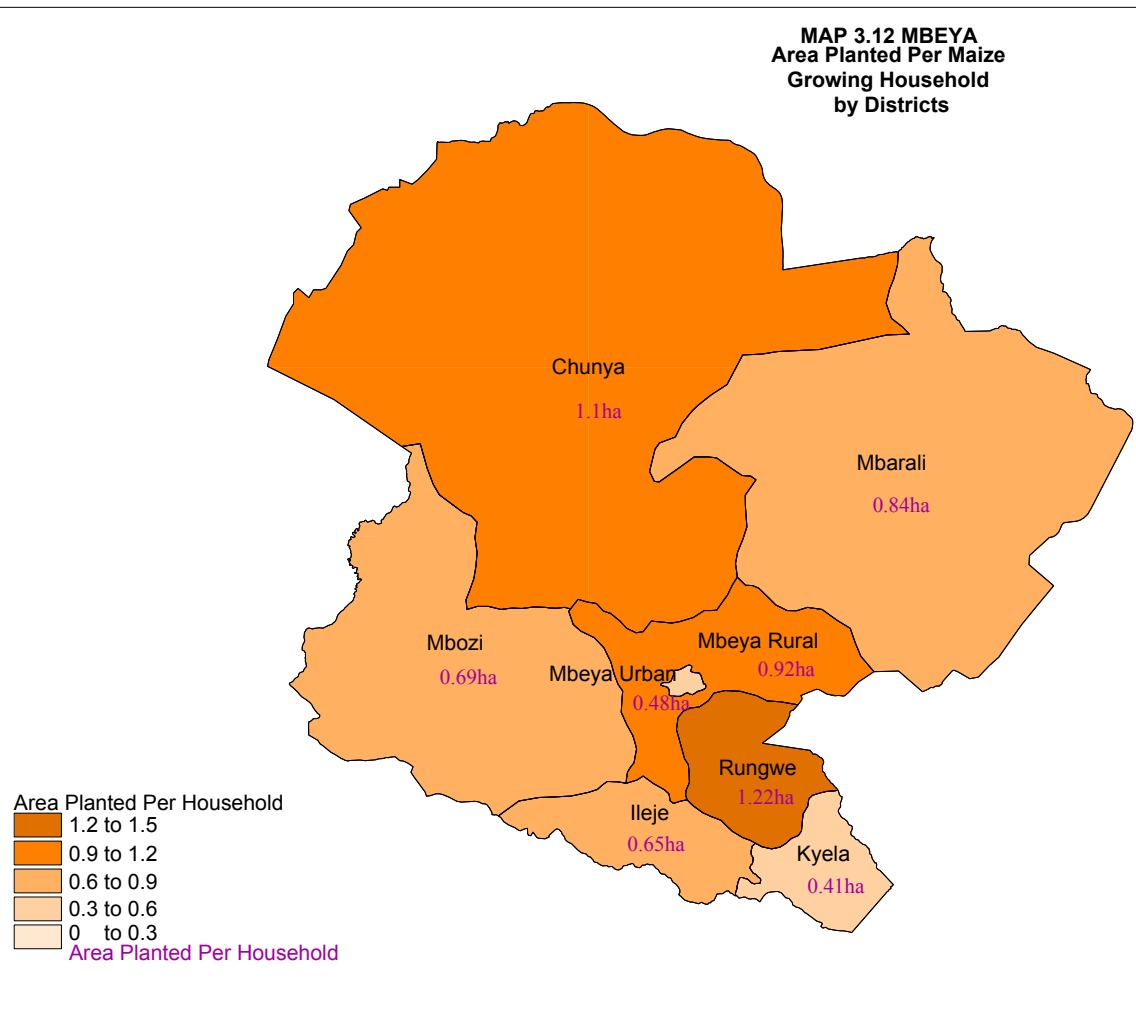
Other cereals produced in the region were sorghum; bulrush millet, finger millet; wheat and barley. Chunya district had the largest area planted with sorghum (11,313 ha), followed by Mbozi (10,943 ha), Mbarali (2042 ha) and Mbeya Rural (1,530 ha). Very small quantities of sorghum were produced in Kyela, Ileje and Mbeya Urban. Rungwe district did not cultivate any sorghum. Bulrush millet was cultivated in Mbozi and Mbeya Urban districts. While finger millets were cultivated in all eight districts wheat cultivation was done in only three districts of Mbeya Rural, Ileje and Mbeya Urban. Barley was cultivated in Rungwe district only (Chart 3.26).



**MAP 3.11 MBEYA
Planted Area and Yield of
Maize by District**



**MAP 3.12 MBEYA
Area Planted Per Maize
Growing Household
by Districts**



3.3.5 Root and Tuber Crop Production

The total production of roots and tubers was 52,590 tonnes. Irish potatoe production was the highest with a total production of 23,454 tonnes representing 44.6 percent of the total root and tuber crop production. This was followed by cassava with 19,504 tonnes . (37.1%), sweet potatoes (6,603t, 12.6%), coco yams (2,509t, 4.5%) and yams (55t, 0.9%) (Table 3.3).

Cassava had the largest planted area during 2002/03 agricultural year in Mbeya accounting for 50 percent of the area planted with roots and tubers, followed by Irish potatoes (28%), percent sweet potatoes (18%), cocoyams (3%) and yams (1%). It is difficult to determine the total planted area and production for the short and long rainy seasons for roots and tubers as the total production of cassava was reported under the long rainy season.

The yield for Irish potatoes (3.0 t/ha) and cocoyams (2.9 t/ha) yams (2.5 t/ha), cassava and sweet potatoes both at (1.4 t/ha).

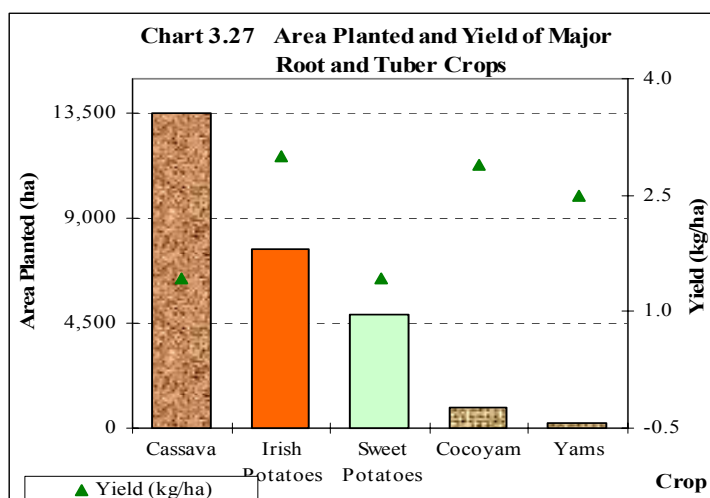
3.5.1 Cassava

The number of households growing cassava in the region was 41,254. This represents 11.1 percent of the total crop growing households in the region.

The total production of cassava during the census year was 19,504 tonnes from a planted area of 13,498 hectares resulting in a yield yield of 1.4/ha.

Table 3.3 Area, Production and Yield of Cereal Crops by Dry and Wet Seasons combined.

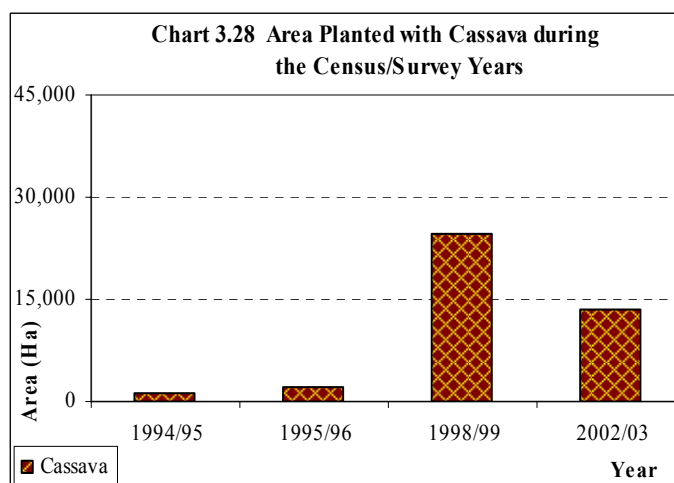
Crop	Dry and Wet Seasons		
	Area Planted (ha)	Quantity Harvested (tonnes)	Yield (kg/ha)
Cassava	13,498	19,504	1.4
Irish Potatoes	7,715	23,454	3.0
Sweet Potatoes	4,867	6,603	1.4
Cocoyam	852	2,509	2.9
Yams	209	520	2.5
Total	27,141	52,590	

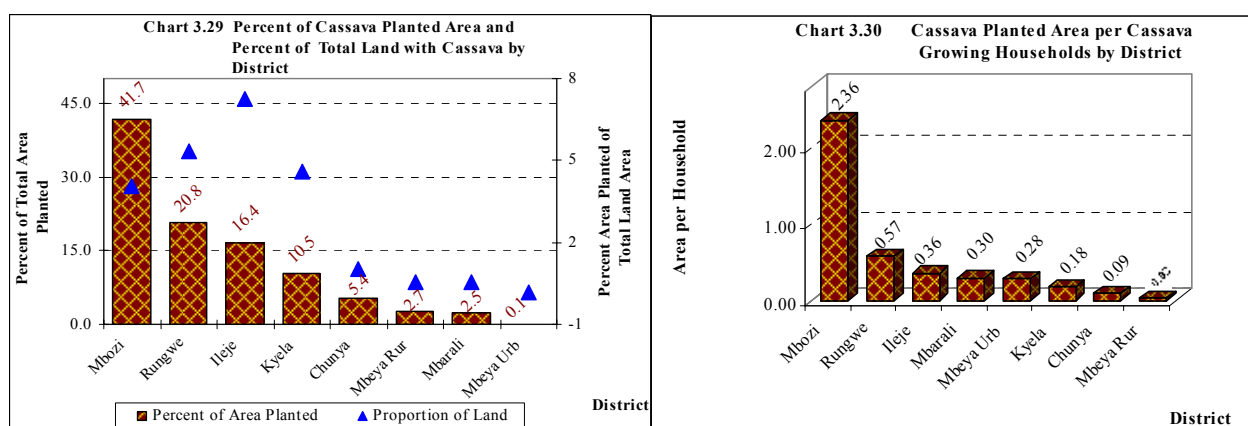


Previous censuses and surveys indicate that the area planted with cassava increased over the period 1994/1995 to 2002/03.

The planted area with cassava increased sharply from 1,265 hectares in 1996 to 24,535 hectares in 1999 and after which it decreased to 13,498 ha in 2003 (Chart 3.28). In 2002/03 the area planted with cassava accounted for 3 percent of the total area planted with annual crops and vegetables in the region.

Mbozi district had the largest planted area of Cassava (5,630 ha, 41.7% of the cassava planted area in the region), followed by Rungwe (2,804 ha, 20.8%), Ileje (2,218 ha, 16.4%), Kyela (1,416 ha, 10.5%) Chunya (729 ha, 5.4%), Mbeya Rural (359 ha, 2.7%), Mbarali (333 ha, 2.5%) and Mbeya Urban (9 ha, 0.1%) (Map 3.15). However, the district with the highest proportion of land planted with cassava was Ileje district (7.3%). This was followed by Rungwe (5.3%), Kyela (4.6%), Mbozi (4.1%), Chunya (1.0%), Mbarali and Mbeya Rural had (0.5%) each and Mbeya urban had (0.1%) (Chart 3.29).



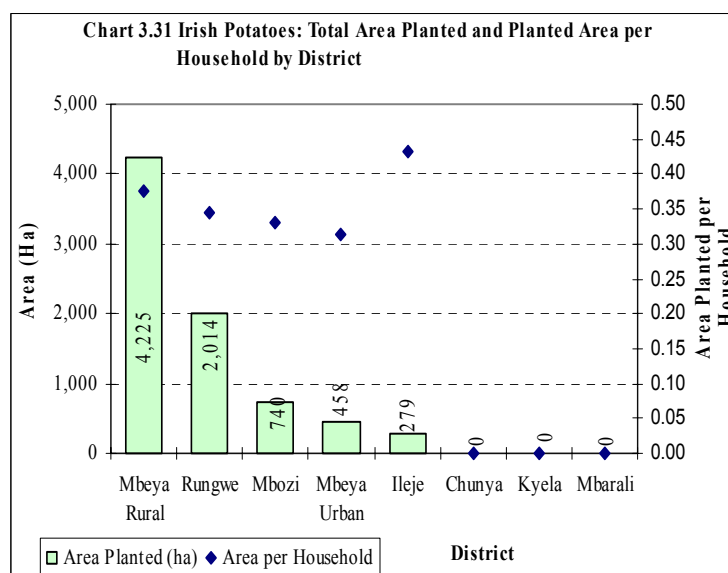


The average cassava planted area per cassava growing household was 0.33 hectares. However, there were small district variations. The area planted per cassava growing household was largest in Mbozi district with (2.36 ha). This was followed by Rungwe (0.57 ha), Ileje (0.36 ha), Mbarali (0.30 ha), Mbeya Urban (0.28 ha), Kyela (0.18 ha), Chunya (0.09 ha) and Mbeya Rural (0.03 ha) (Chart 3.30 and Map 3.16).

3.5.2 Irish Potatoes

The number of households growing Irish potatoes in Mbeya region was 21,399. This was 5.7 percent of crop growing households in the region. The total production of Irish potatoes during the census year was 23,454 tonnes from a planted area of 7,715 hectares resulting in a yield of 3.0 t/ha.

Mbeya Rural district had the largest planted area of Irish potatoes (4,225 ha, 54.8%), followed by Rungwe (2,014 ha, 26.1%), Mbozi 739 ha, 9.6%), Mbeya Urban (458 ha, 5.9%) and Ileje (279 ha, 3.6%). Irish potatoes were not grown in Chunya, Kyela and Mbarali districts (Chart 3.31). Other root and tuber crops were of minor important in terms of area planted compared to cassava, Irish potatoes and sweet potatoes.



3.3.6 Pulse Crops Production

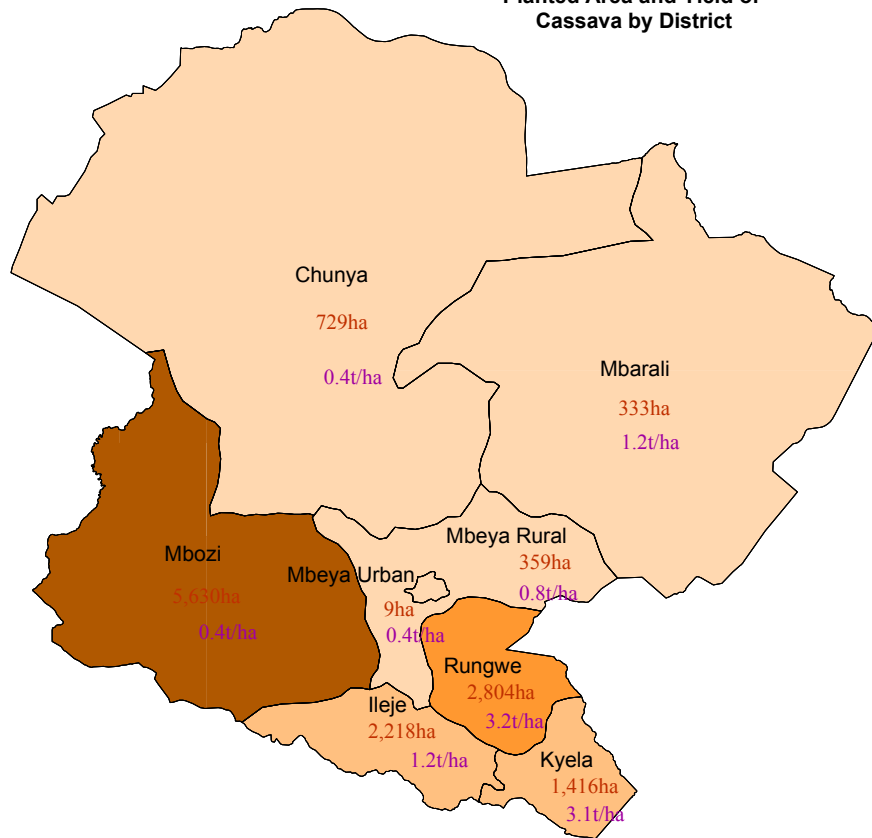
The total area planted with pulses was 65,043 hectares out of which 62,592 (96.2%) of the total area planted with pulses were planted with beans, followed by field peas (1,545 ha, 2.4%), bambaranuts (592 ha, 0.9%), cow peas (308 ha, 0.5%) and chick peas (5 ha, 0.01%). Mung beans and green gram were not cultivated in the region.

Table 3.4: Area, Production and Yield of Pulses by (Short & Long Seasons) Combined

Crop	Dry & Wet Seasons			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Beans	62,592	30,029	473	62,592	30,029	473
Field Peas	1,545	449	329	1,545	449	329
Bambaranuts	593	342	578	593	342	578
Cowpeas	308	91	295	308	91	295
Chich Peas	5	1	200	5	1	200
Mung Beans	0	0	0	0	0	0
Green Gram	0	0	0	0	0	0
TOTAL	65,043	30,912		64,864	30,498	

**MAP 3.13 MBEYA
Planted Area and Yield of
Cassava by District**

Planted Area (ha)
 4,800 to 6,000
 3,600 to 4,800
 2,400 to 3,600
 1,200 to 2,400
 0 to 1,200
 Planted Area (ha)
 Yield (t/ha)



**MAP 3.14 MBEYA
Area Planted Per Cassava
Growing Household
by Districts**

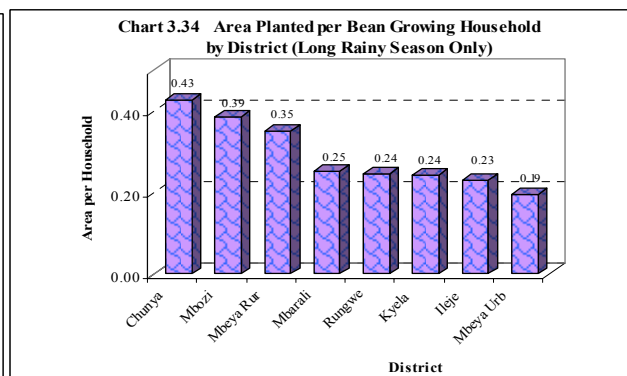
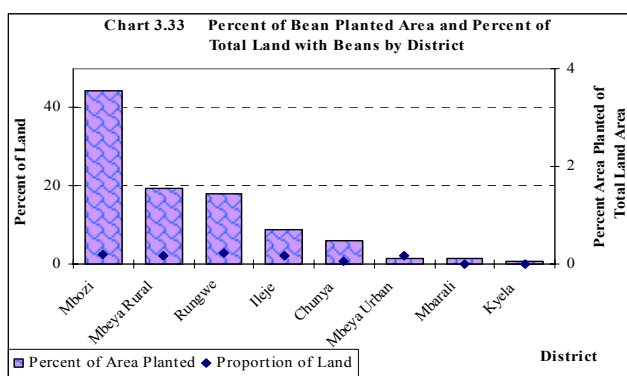
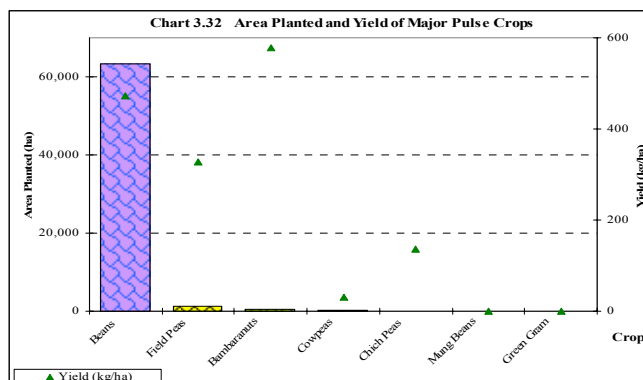
Area Planted Per Household
 0.38 to 0.4
 0.36 to 0.38
 0.34 to 0.36
 0.32 to 0.34
 0 to 0.32
 Area Planted Per Household



The total production of pulses was 30,912 tonnes. The production of beans was 30,029 tonnes. Field peas had a production of 449 tonnes and other pulse crops were produced in minor quantities (Chart 3.32).

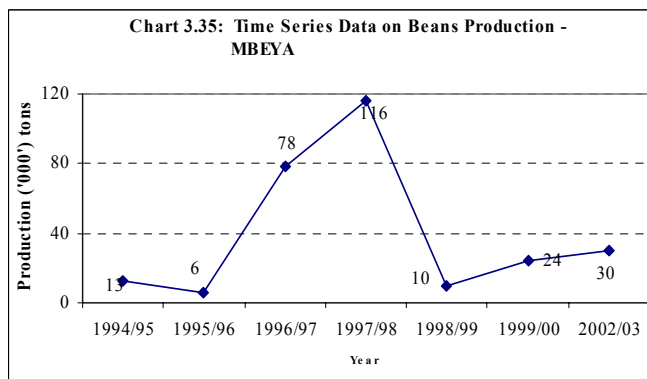
3.6.1 Beans

Beans dominate the production of pulse crops in the region. The number of households growing beans in Mbeya region was 198,422. The total production of beans in the region was 29,615 tonnes from a planted area of 63,454 hectares resulting in a yield of 0.5 t/ha. The largest area planted with beans in the region was in Mbozi (27,786 ha, 44.4%) (Chart 3.33 and Map 3.17), however, the largest area planted with beans per household was in Chunya district (0.43 ha) (Chart 3.34).

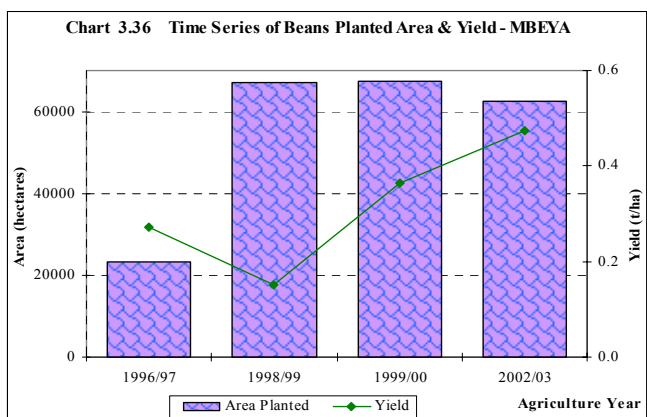


The average area planted per bean growing household in the region during the long rainy season was 0.33 ha. The variations in area planted with beans for the rest of the districts were small ranging from 0.19 ha in Mbeya Urban district to 0.39 ha in Mbozi district (Map 3.18 and Chart 3.35).

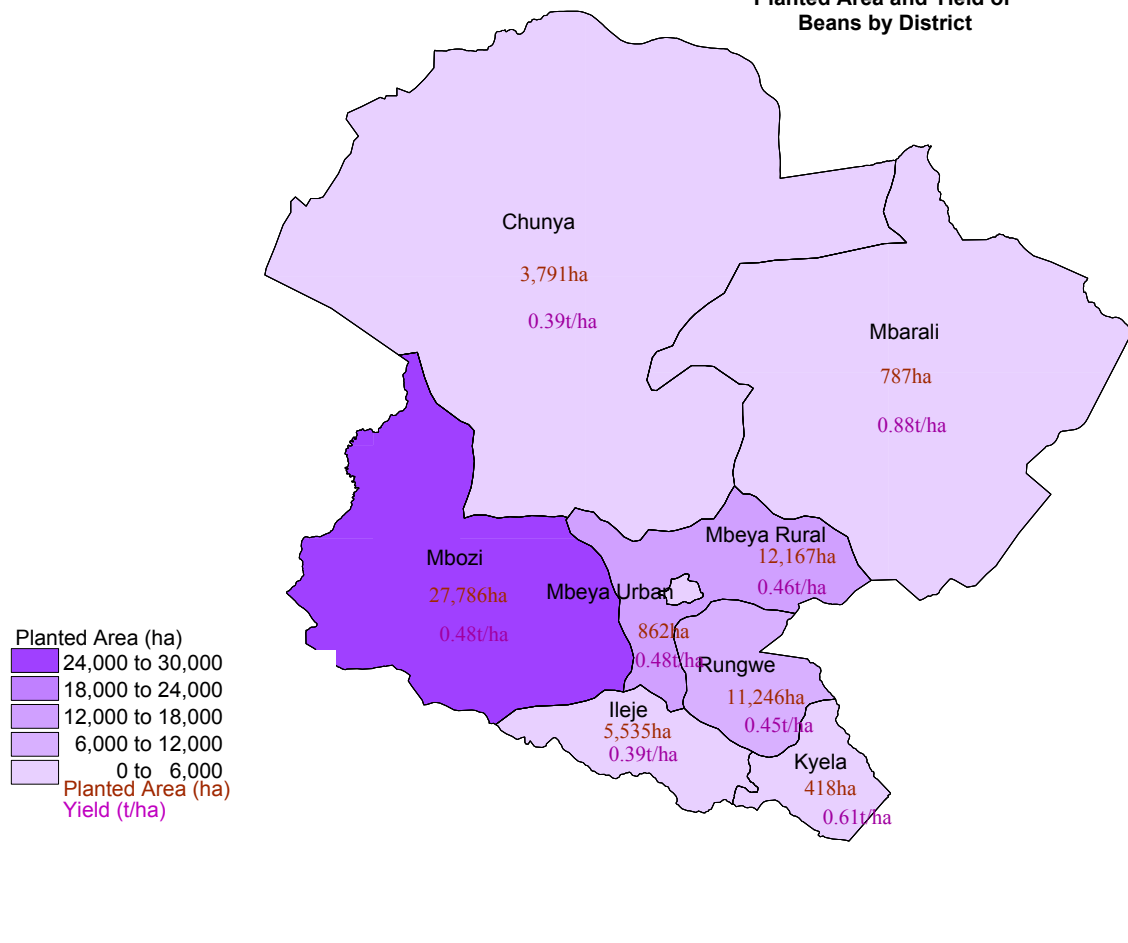
In Mbeya region, bean production has increased sharply from 5,805 tonnes in 1995 to 115,697 tonnes in 1997 after which it decreased sharply to 10,155 tonnes in 1998 from 1999/2000 it started increasing gradually to 29,615 tonnes in 2002/03 (Chart 3.35).



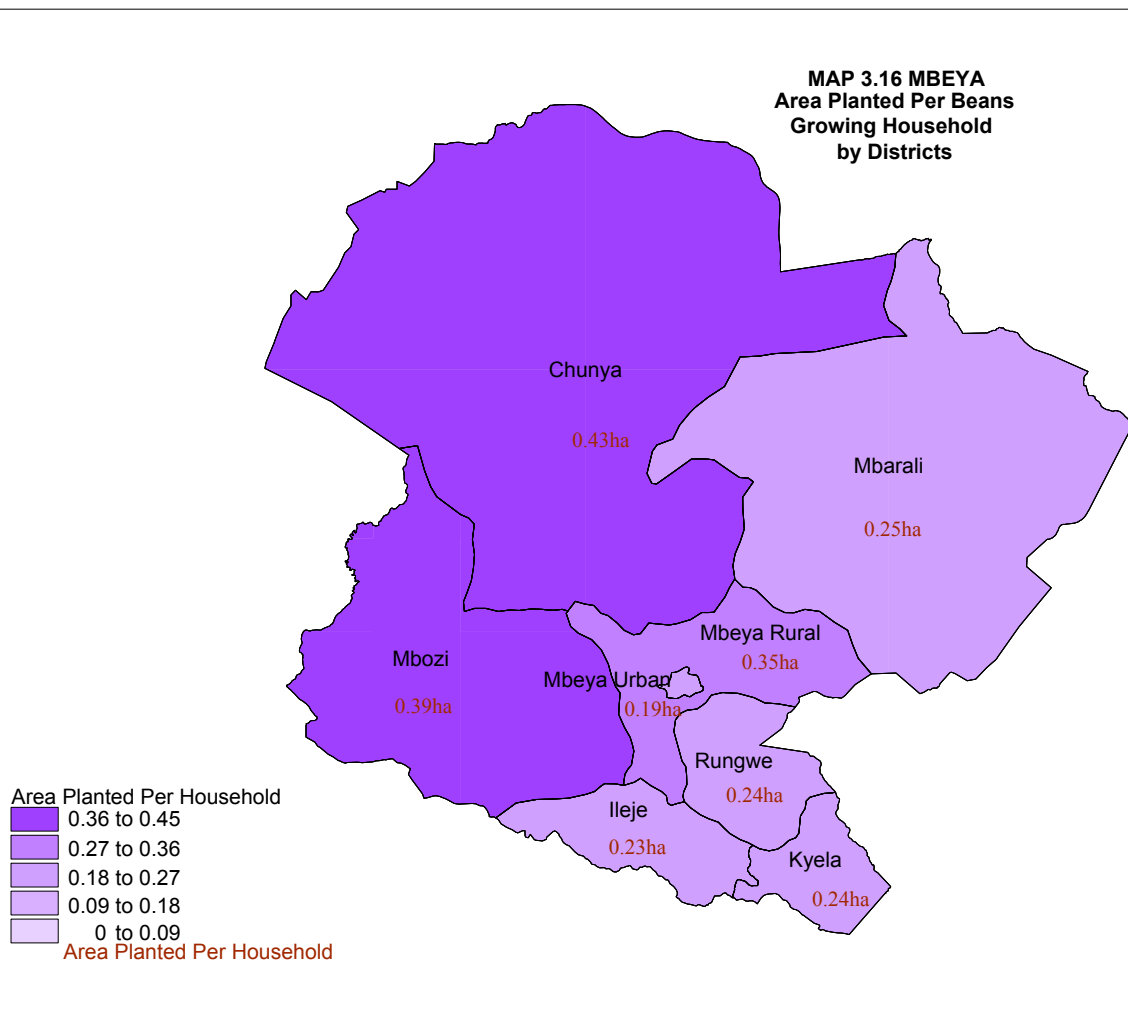
Charts 3.35 and 3.36 show that, the increase in production from 1995/96 was due to the a sharp increase in planted area has been due to an increase in the planted area and not due to an increase in productivity. (Chart 3.36).



**MAP 3.15 MBEYA
Planted Area and Yield of Beans by District**



**MAP 3.16 MBEYA
Area Planted Per Beans
Growing Household
by Districts**



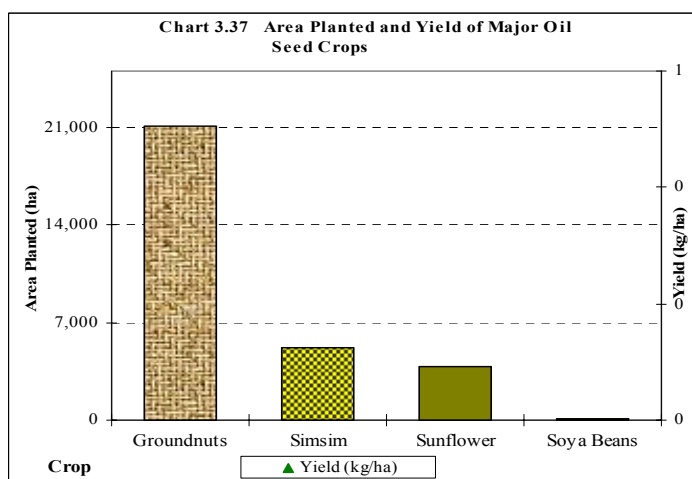
3.3.7 Oil Seed Production

The total production of oilseed crops was 14,620 tonnes planted on an area of 30,141 hectares.

Table 3.5: Area, Production and Yield of Oil Seeds & Oil Nuts During 2002/03 Agricultural Year (Dry & Wet Seasons Combined)

Crop	Short & Long Rainy Seasons		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Groundnuts	21,054	10,724	509
Simsim	5,194	2,051	395
Sunflower	3,814	1,810	475
Soya Beans	79	35	438
Total	30,141	14,620	

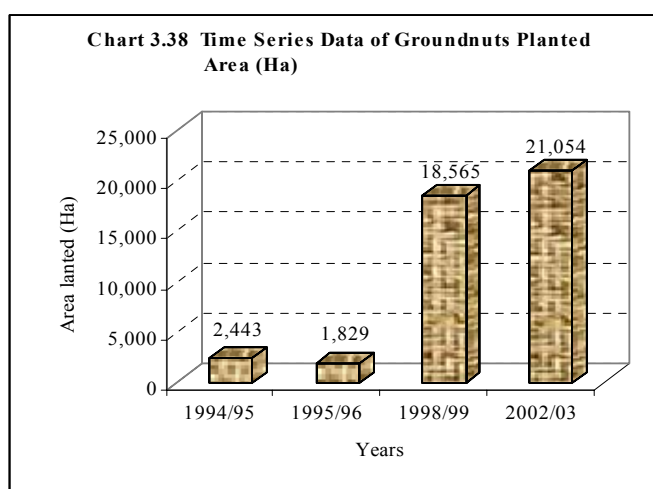
Groundnuts were the most important oilseed crop with a planted area of 21,054 ha (69.9% of the total area planted with oil seeds), followed by simsim (17.2%), sunflower (12.7%) and soya beans (0.3%) (Chart 3.37). The yield of groundnuts was moderate at (509 kg/ha). Sunflower had a yield of 475 kg/ha, soya beans of 443kg /ha and simsim 395 kg/ha.



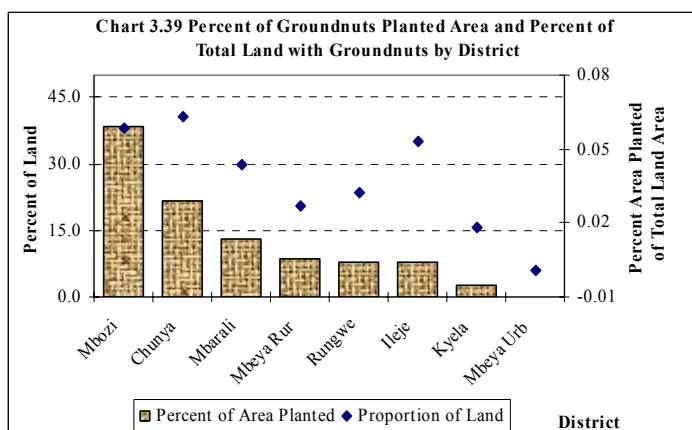
3.3.7.1 Groundnuts

The number of households growing groundnuts in Mbeya region was 82,646. The total production of groundnuts in the region was 10,724 tonnes from a planted area of 21,054 hectares resulting in a yield of 0.5 t/ha.

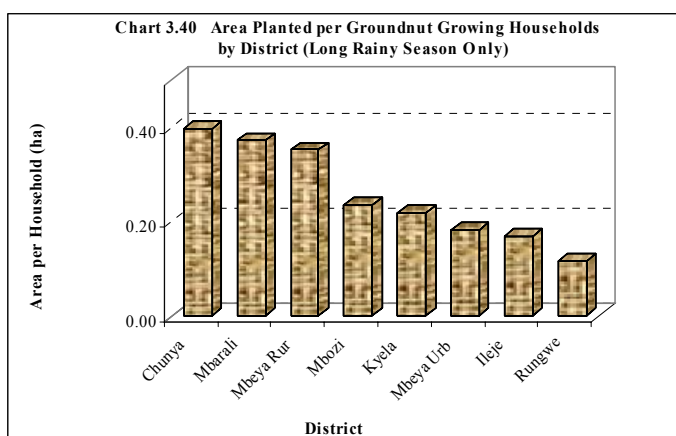
The planted area increased from 1,829 hectares in 1995/96 to 21,054 hectares in 2002/03 (Chart 3.38).



Mbozi district had the largest planted area of groundnuts at (8,117 ha, 38.6%) of the area planted with oil seeds), followed by Chunya (4,527 ha, 21.5%), Mbarali (2,742 ha, 13.0%), Mbeya Rural (1,799 ha, 8.5%), Rungwe (1,689 ha, 8.0%), Ileje (1,615 ha, 7.7%) Kyela (562 ha, 2.7%) and Mbeya Urban (2 ha, 0.01%) (Map 3.19). The highest proportion of land with groundnuts was in Chunya, followed by Mbozi, Ileje, Mbarali, Rungwe, Mbeya Rural, Kyela and Mbeya Urban (Chart 3.39 and Map 3.20).



The largest area planted per groundnut growing household was found in Chunya District (0.40ha) and the lowest was in Rungwe district (0.12 ha). The range between the district with the highest and lowest area planted per household depicts small variations between the districts (Chart 3.40).



3.3.8 Fruits and Vegetables

The collection of fruit and vegetable production data was difficult due to the small quantities produced per household. Most of the data presented here gives the production of smallholders who grew these crops as cash crops and not merely for household consumption.

The most cultivated fruit and vegetable crop was tomatoes with a production of 6,312 tonnes (46.4% of the total fruit and vegetables produced). The production of onions was 3,787 tonnes (27.8%) and cabbage 1,731 tonnes (12.7%). The production of other fruit and vegetable crops was relatively small (Table 3.6).

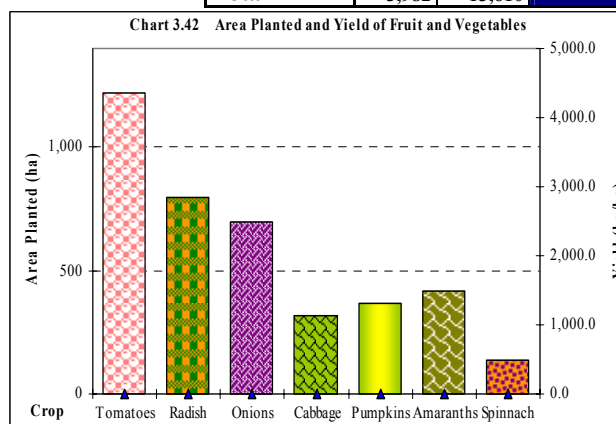
The yield of bitter aubergine was (10,333 kg/ha), chillies (76,250 kg/ha), onions 5,449 kg/ha, cabbage (5,443 kg/ha), tomatoes (5,182 kg/ha), cucumber (5,000 kg/ha), carrot (4,700 kg/ha), pumpkins (1,811 kg/ha), spinach (1,650 kg/ha), and Amaranths (1,043 kg/ha). Radish and eggplant had yields of 400 and 125 kg/ha respectively (Chart 3.42).

Table 3.6: Area, Production and Yield of Fruits and Vegetables During 2002/03 Agricultural Year (Dry & Wet Seasons Combined)

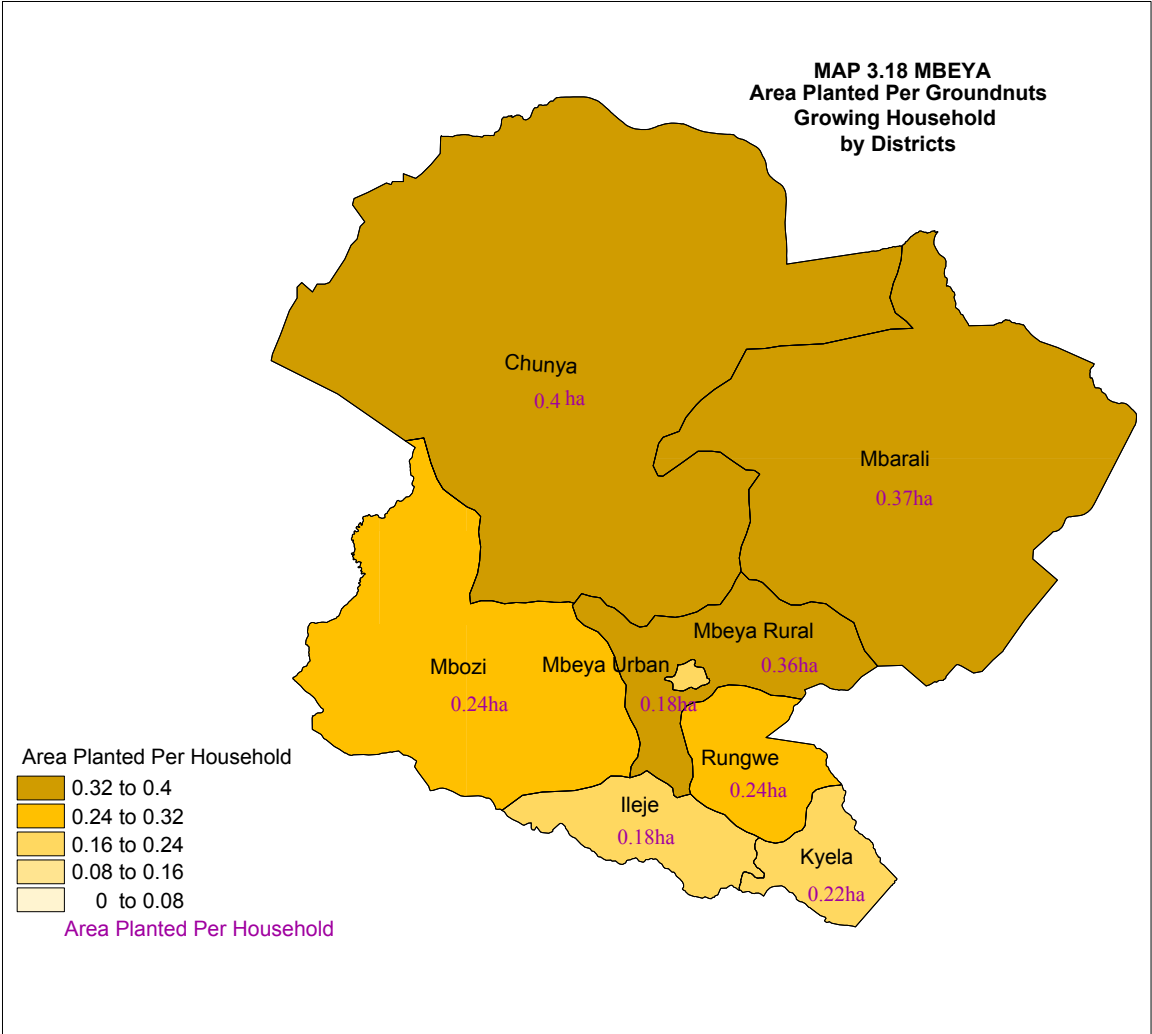
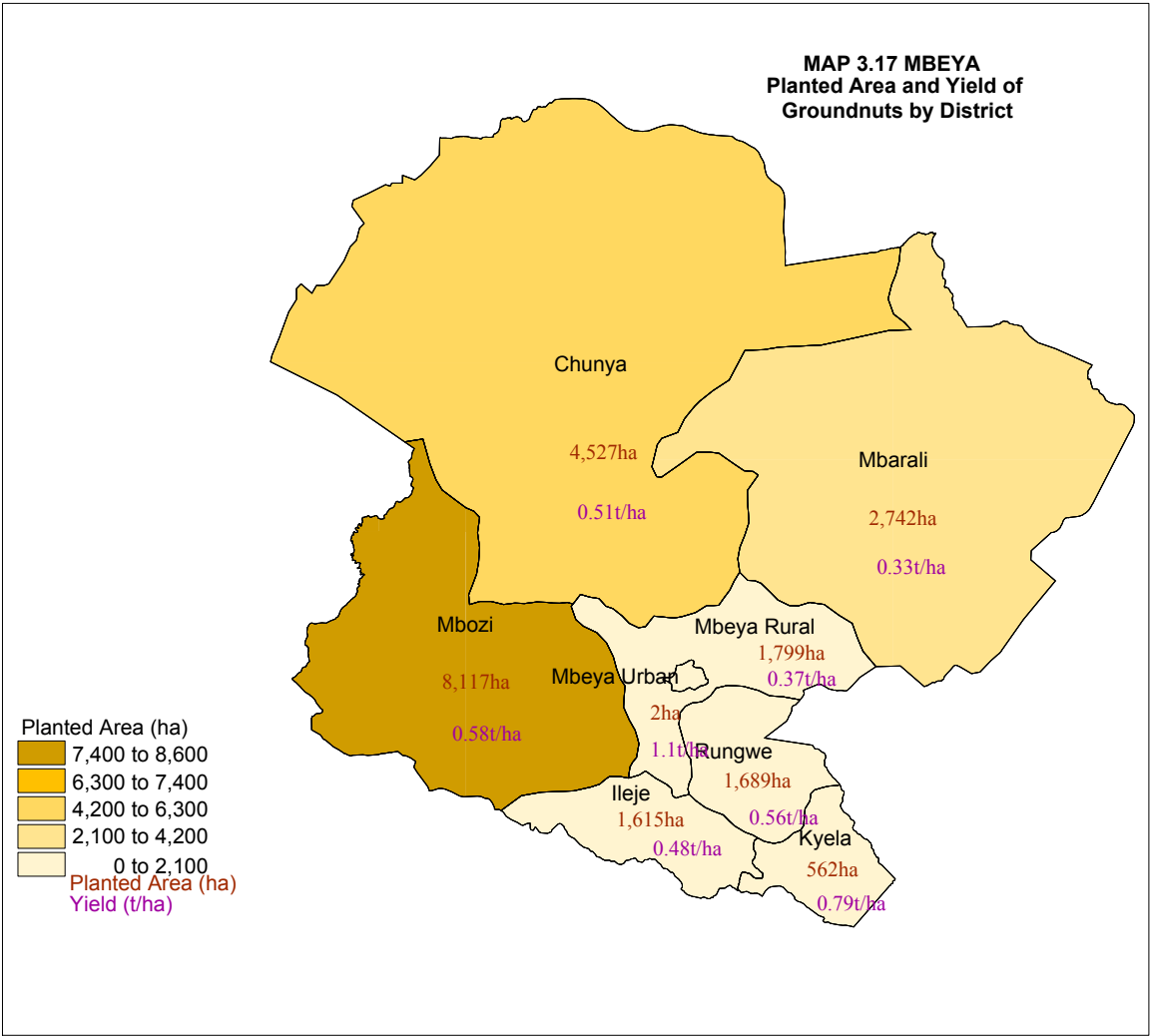
Crop	Short & Long Rainy Seasons		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Tomatoes	1,218	6,312	5182
Radish	795	318	400
Onions	695	3,787	5449
Cabbage	318	1,731	5443
Pumpkins	365	661	1811
Amaranths	420	438	1043
Spinnaach	137	226	1650
Egg Plant	16	2	125
Carrot	10	47	4700
Bitter Aubergine	6	62	10,333
Chillies	4	25	6,250
Cucumber	0.2	1	5,000
Total	3,982	13,610	

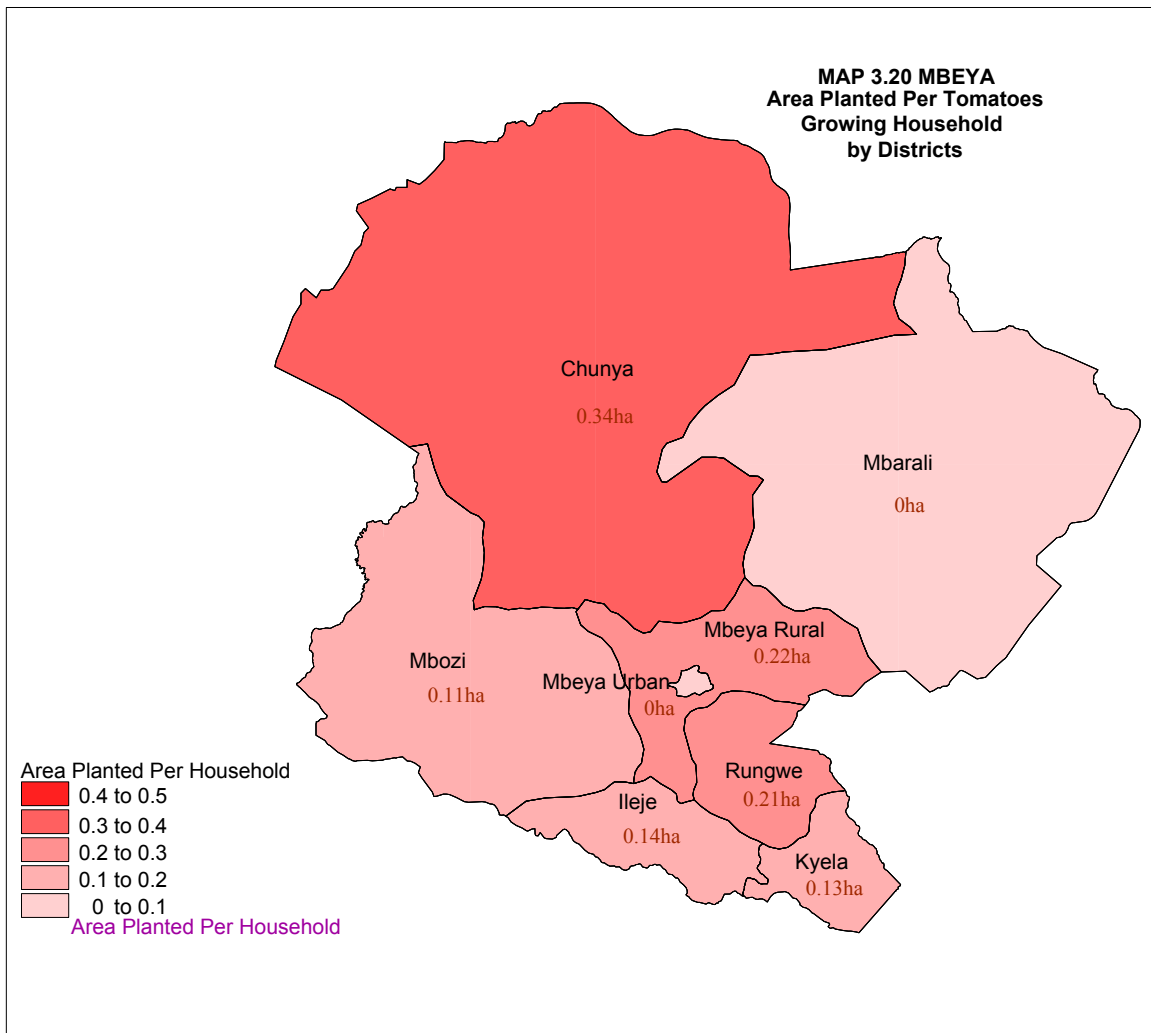
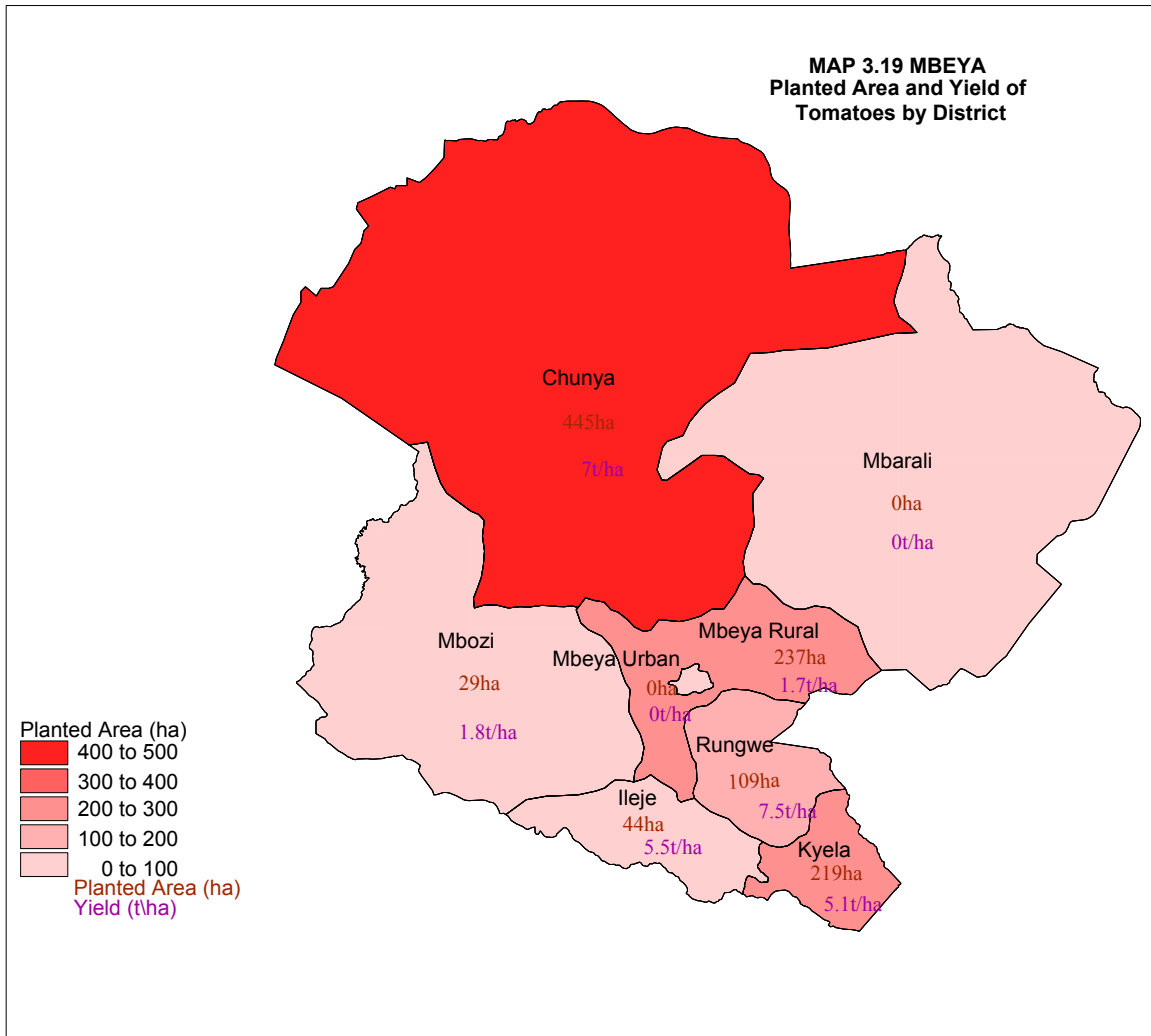
3.8.1 Tomatoes

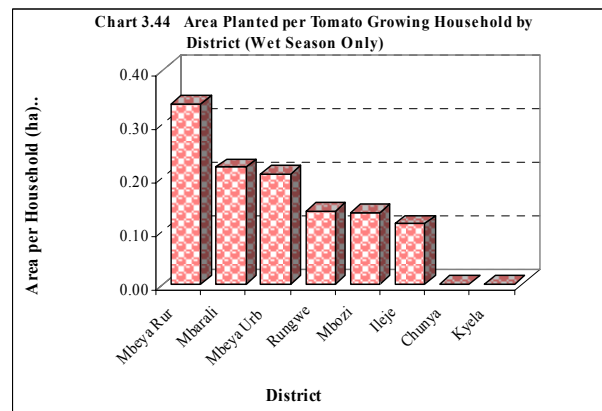
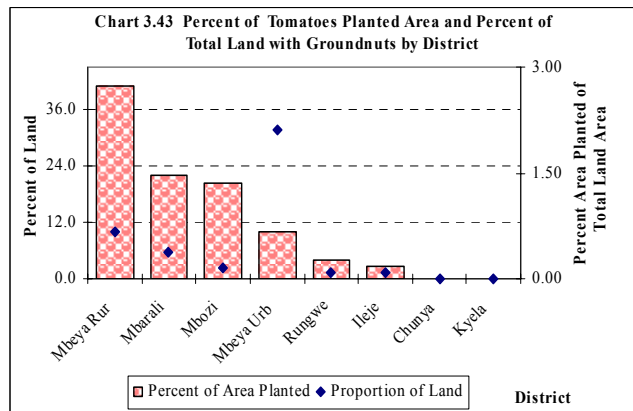
The number of households growing tomatoes in the region during the wet season was 5,167 and 985 households in the dry season. This represented 1.5 percent of the total households growing annual crops in the region during the wet season and 1.6 percent of the households growing annual crops during the dry season. Mbeya Rural district had the largest planted area of tomatoes (36.5% of the total area planted with tomatoes in the region), followed by Mbarali (19.5%), Mbozi (18.0%), Rungwe (11.1%), Mbeya Urban (9.0%), Kyela (3.5%) and Ileje (2.4%). Chunya district did not grow any tomatoes (Map 3.21).



The highest proportion of land area with tomatoes was found in Mbeya Urban followed by Mbeya Rural district. With exception Mbeya Urban, Mbeya Rural, Mbarali, and Rungwe districts, the rest of the districts had relatively low percentage of land used for tomato production (Chart 3.43). The largest area planted per tomato growing household was found in Mbeya Rural district (0.34 ha) followed by Mbarali (0.22 ha), Mbeya Urban (0.21 ha), Rungwe (0.15 ha), Mbozi (0.13 ha), Ileje (0.11 ha) and Kyela (0.10 ha) (Chart 3.44 and Map 3.22).

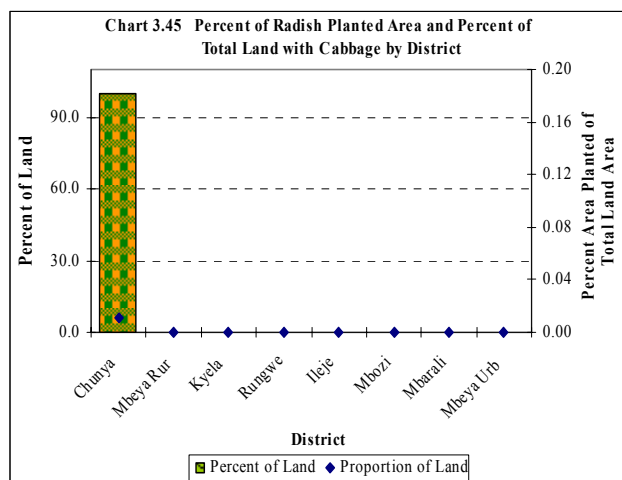






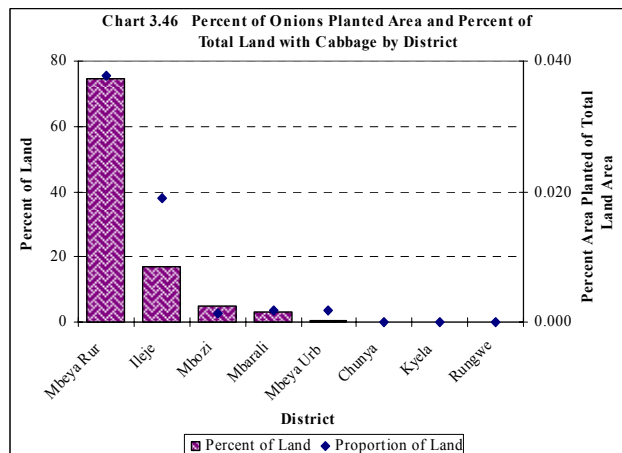
3.3.8.2 Radish

The number of households growing radish in the region during the wet season was 98 households. This represented 0.0003 percent of the total households growing annual crops in the region in the wet season. Chunya was the only district in the region which grew radish.



3.3.8.3 Onions

The number of households growing onions in the region during the long rainy season was 3,288 households and 116 in the short rainy season. This represented 0.96 annual crops in the region in the wet season and 0.19 percent of the corresponding households in the dry season.



Mbeya Rural district had the largest planted area of onions (2,536 ha, 75% of the total area planted with onions in the region), followed by Ileje (580 ha, 17%), Mbozi (172 ha, 5%), Mbarali (106 ha, 2.5%) and Mbeya Urban (9 ha, 0.3%). However, Chunya, Rungwe, Kyela and Mbeya Urban districts did not grow any onions. The largest proportion of the area planted with onions was found in Mbeya Rural district (0.038%), followed by Ileje (0.019%), Mbarali and Mbeya Urban had (0.002%) each and Mbozi district had (0.001%) (Chart 3.46).

The total area planted with onions accounted for 0.74 percent of the total area planted with annual crops and vegetables during the short and long rainy seasons.

3.3.9 Other Annual Crop Production

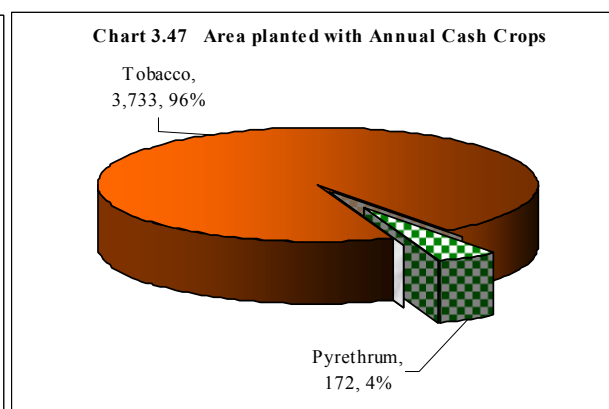
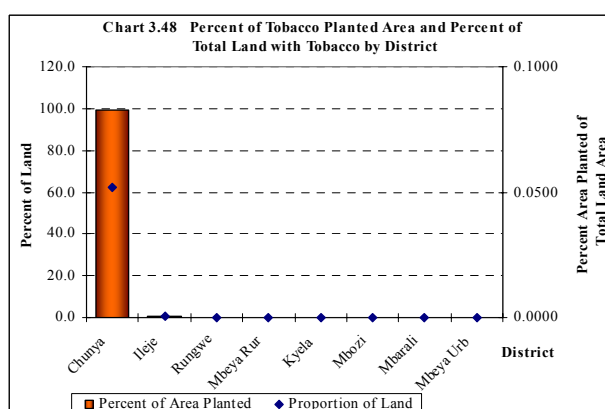
The other annual crops were cash crops. An area of 3,978 ha was planted with other annual crops and tobacco was the most prominent followed by pyrethrum. The area planted with annual cash crops in the short rainy season was 73 ha which represents 1.8 percent of the total area planted with other annual cash crops in short and long rainy season.

Table 3.7: Area, Production and Yield of Annual Cash Crops During 2002/03 Agricultural Year by (Dry & Wet seasons Combined)

Crop	Dry & Wet Seasons			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Tobacco	3,733	3,606	966	3,733	3,606	966
Pyrethrum	245	245	1,000	245	245	1,000
Total	3,978	3,851		3,906	3,762	

3.9.1 Tobacco

The quantity of tobacco produced was 3,606 tonnes. Tobacco had a planted area of 3,733 ha, all of which was planted in the wet season. Tobacco production was concentrated in Chunya having 99.5 percent of the total area planted with tobacco in the region, followed by Ileje (0.4%) and Rungwe (0.2%) (Chart 3.48) (Map 3.29 and 3.30).



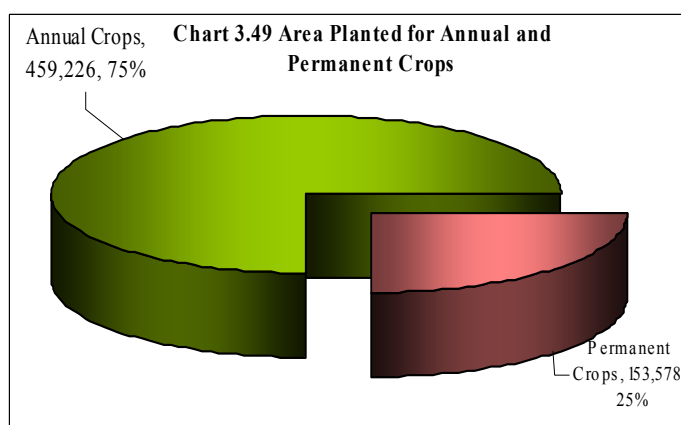
3.3.9.2 Pyrethrum

Only 245 tonnes of pyrethrum was produced in Mbeya Region on a planted area of 245 ha. Pyrethrum was produced during both the wet and dry seasons. The crop was grown in Mbeya Rural district only (Map 3.27) and 0.25 ha was the average area planted per pyrethrum growing households. (Map 3.28).

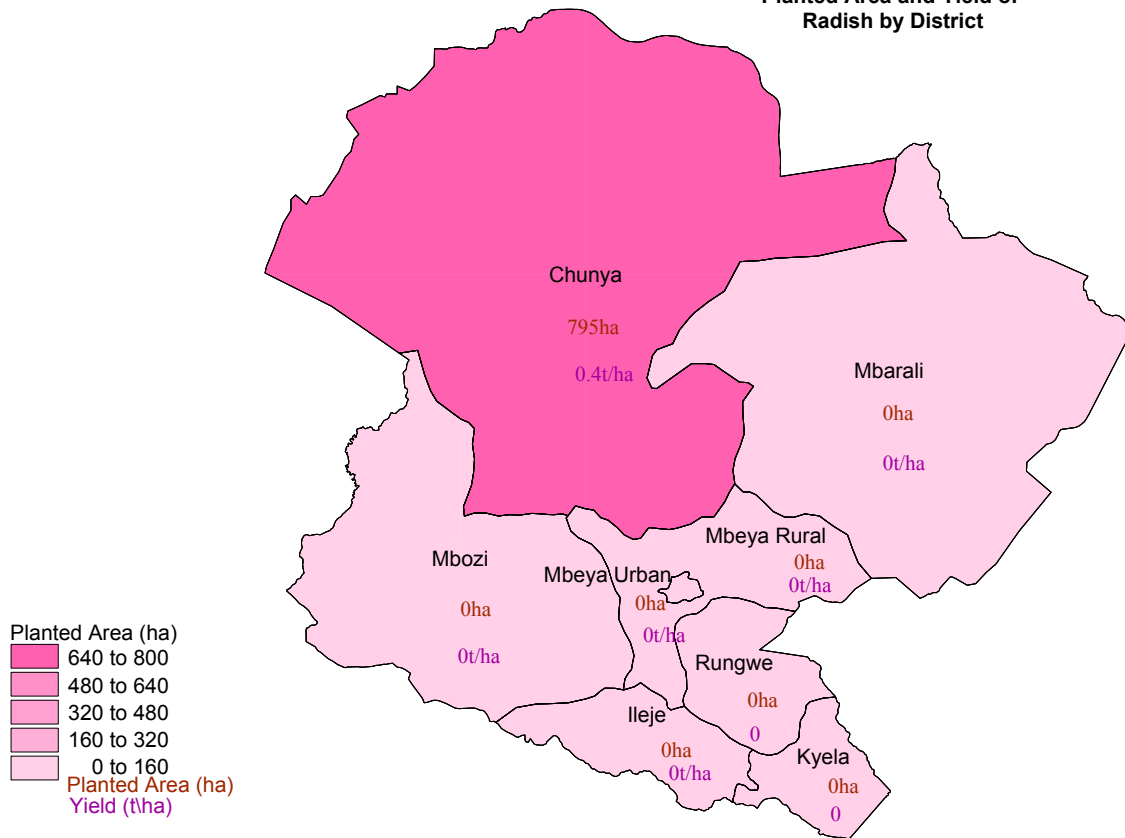
3.4 Permanent Crops

Permanent crops (perennial crops) are crops that normally take over a year to mature and once mature can be harvest for a number of years. For most crops, it is easy to determine if they are annual or permanent, for crops like cassava and bananas the distinction is not so clear. Cassava has varieties that mature within a year and produces only one harvest, whilst other varieties survive for more than one year and produces several harvests.

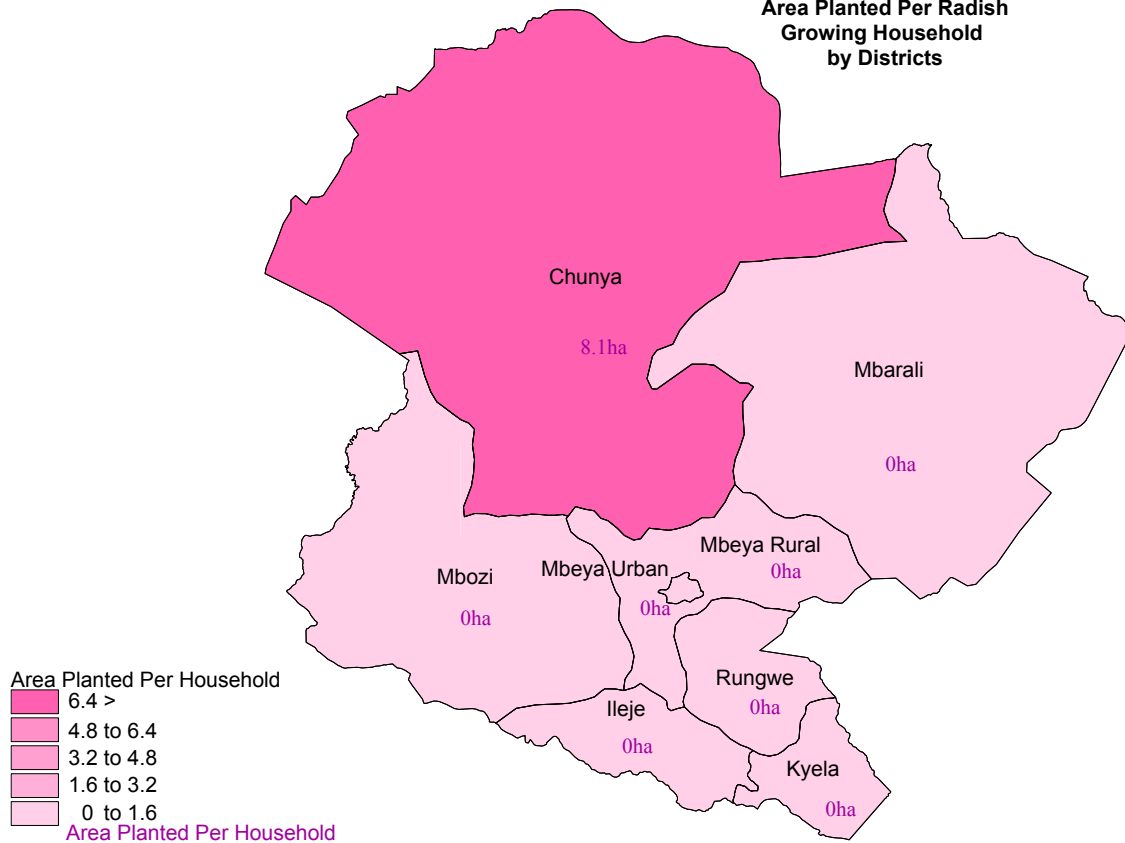
In this census, cassava was treated as an annual crop. Conversely, bananas normally take less than a year to mature, survive for more than one year and are thus treated as a permanent crop. In this report the agriculture census results are presented



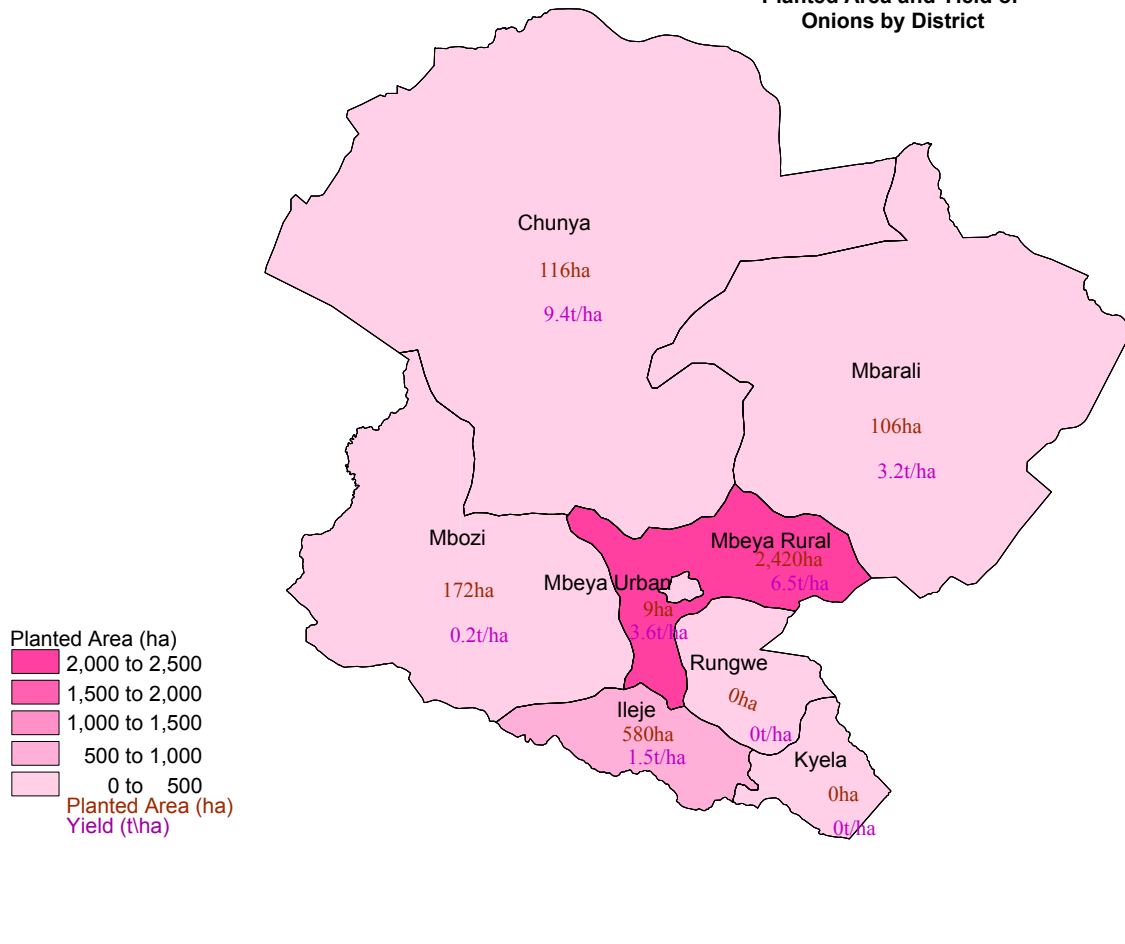
**MAP 3.21 MBEYA
Planted Area and Yield of
Radish by District**



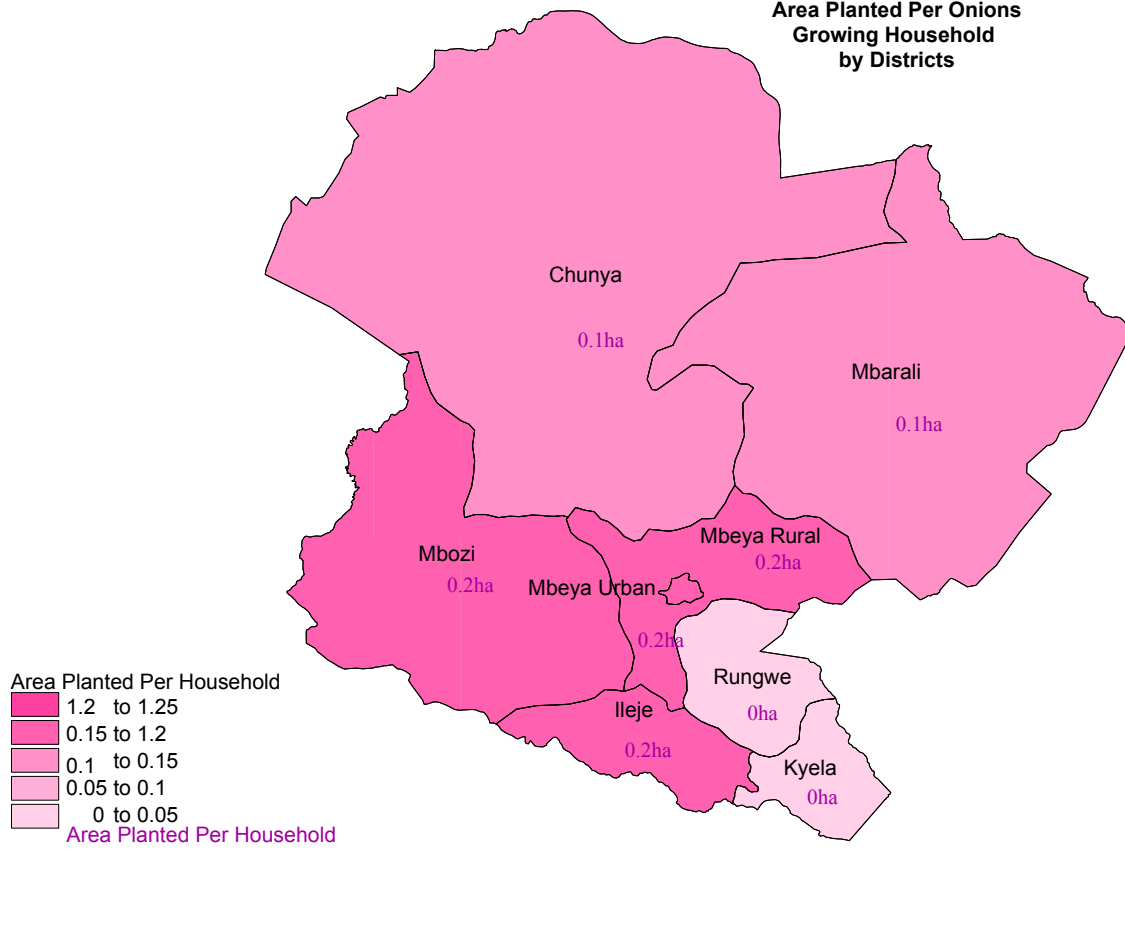
**MAP 3.22 MBEYA
Area Planted Per Radish
Growing Household
by Districts**



MAP 3.23 MBEYA
Planted Area and Yield of Onions by District



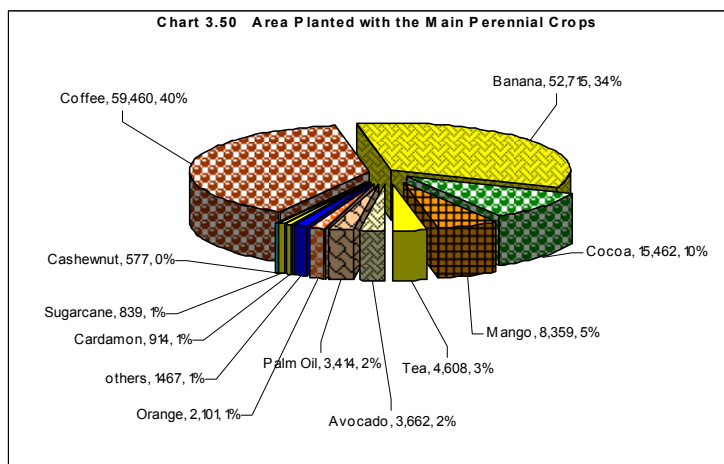
MAP 3.24 MBEYA
Area Planted Per Onions Growing Household by Districts



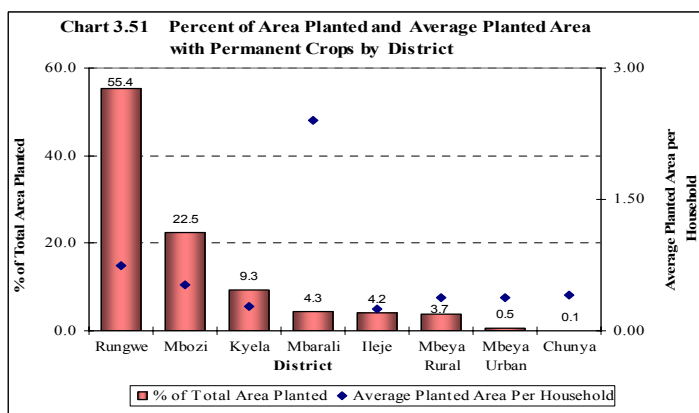
for the most important permanent crops in terms of production, yield and area planted. Previous censuses and surveys did not measure these variables for permanent crops, therefore no time series analysis is made in this section.

The area of smallholders planted with permanent crops was 153,578 hectares (25% of the total area planted with crops in the region). However, the area planted with annual crops is not the actual physical land area as it includes the area of crops planted more than once on the same land, whilst, the planted area for permanent crops is the same as physical planted land area. So the percentage of physical area planted with permanent crops would be higher than indicated in (Chart 3.49).

The most important permanent crop in Mbeya region was coffee which had for a planted area of 59,460 ha, (39% of the planted area of all permanent crops) followed by banana (52,715 ha, 35%), cocoa (15,462 ha, 10%), mango (8,359 ha, 5%), tea (4,608 ha, 3%), avocado (3,662 ha, 2%) and palm oil (3,414 ha, 2%). The remaining permanent crops accounted for only 4 percent of the total area planted with permanent crops (Chart 3.50).

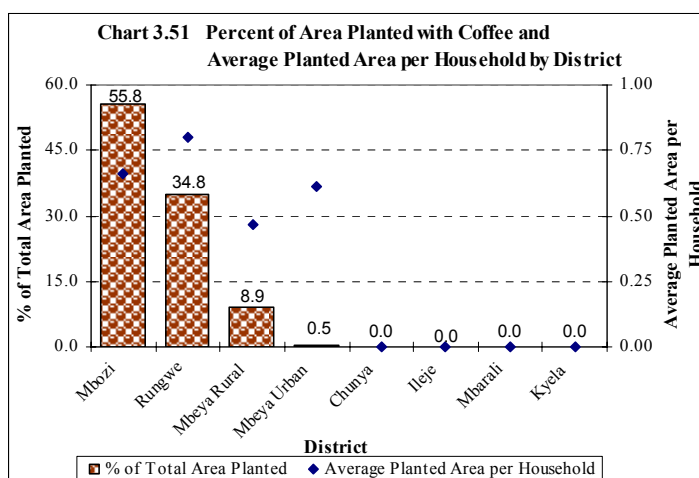


Rungwe district had the largest area under smallholder permanent crops (85,058 ha, 55.4%). This was followed by Mbozi (34,603 ha, 22.5%), Kyela (14,296 ha, 9.3%), Mbarali (6,620 ha, 4.3%), Ileje (6,412 ha, 4.2%), Mbeya Rural (5,681 ha, 3.7%), Mbeya Urban (830 ha, 0.5%) and Chunya (80 ha, 0.1%). However, Mbarali district had the largest area per permanent crop growing household (2.40 ha) followed by Rungwe (0.74 ha), Mbozi (0.52 ha), Chunya (0.41 ha), Mbeya Rural and Mbeya Urban had (0.38 ha) each, Kyela (0.28ha) and Ileje (0.25ha) (Chart 3.51).

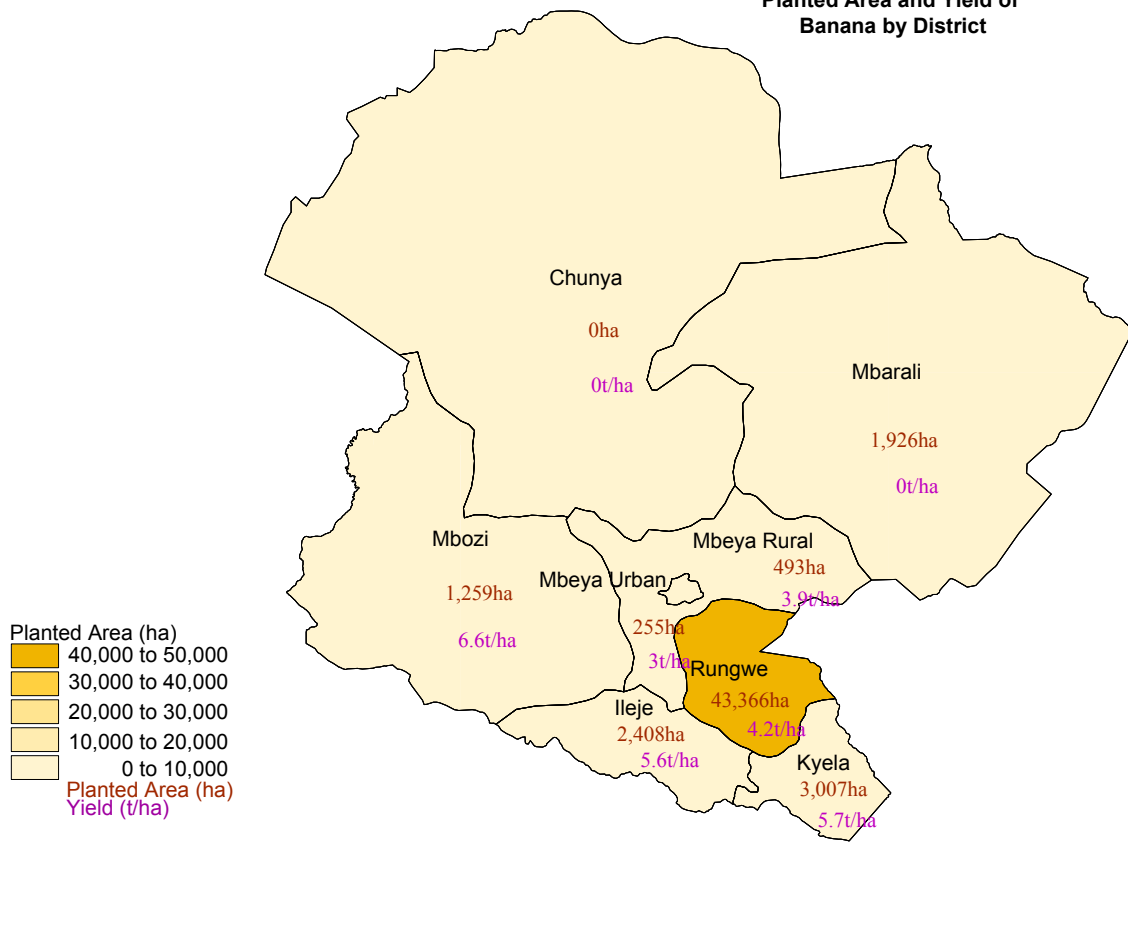


3.4.1 Coffee

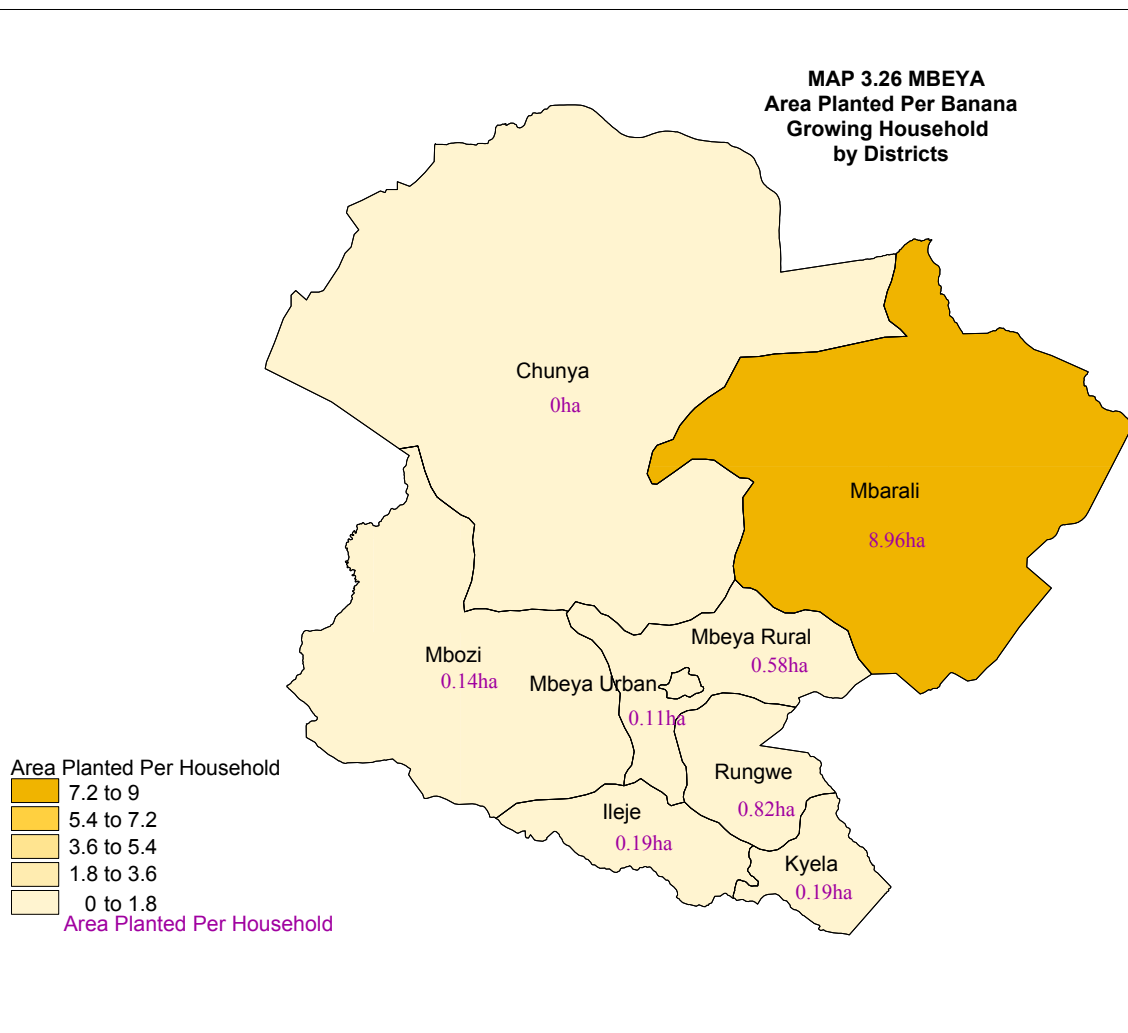
The total production of coffee by smallholders was 98,841 tonnes. In terms of area planted, coffee was the most important permanent crop grown by smallholders in the region. It was grown by 90,477 households (24.3% of the total crop growing households). The average area planted with coffee per coffee growing household was relatively small (0.66ha) and the average yield obtained by smallholders was 2,530 kg/ha from a harvest area of 39,061 ha.

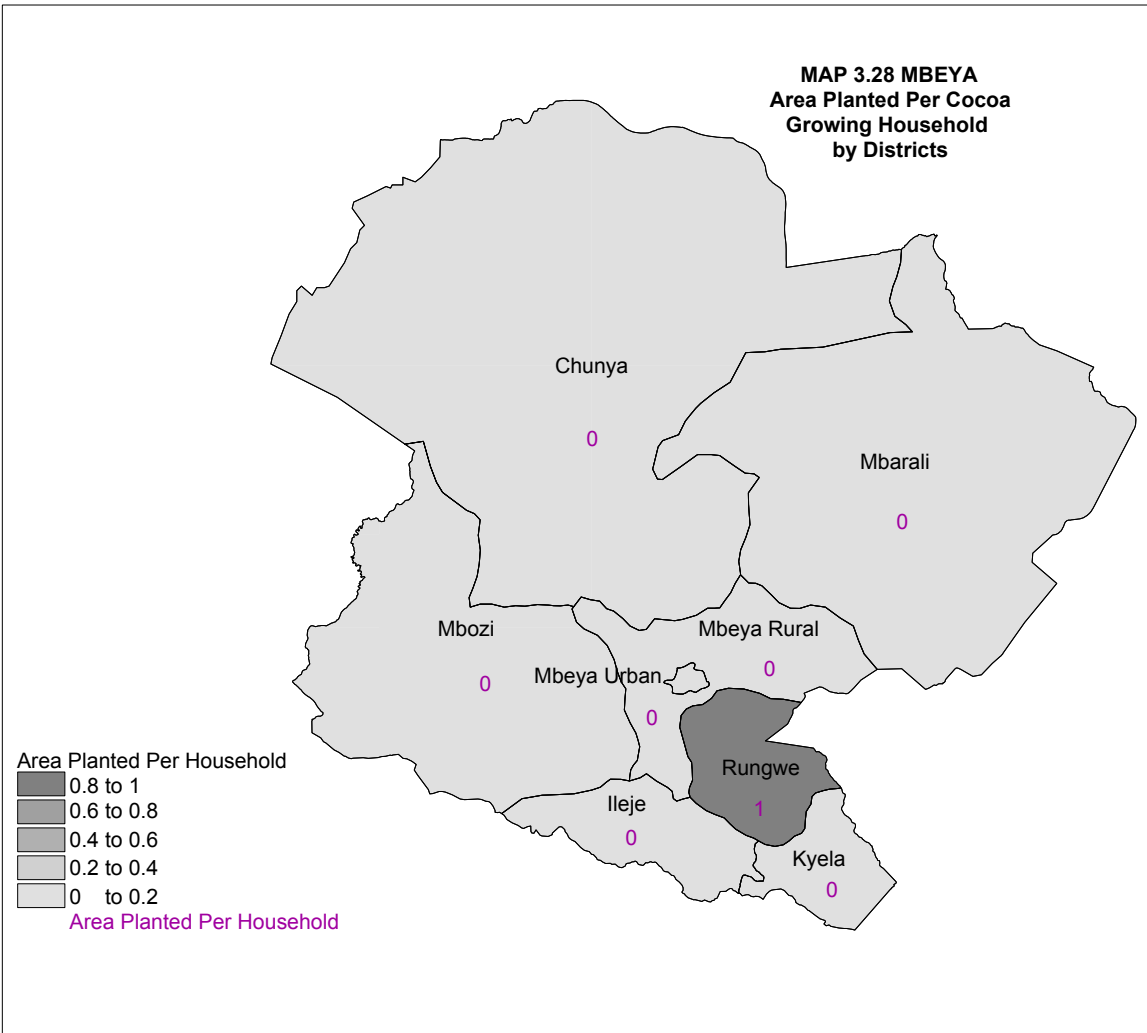
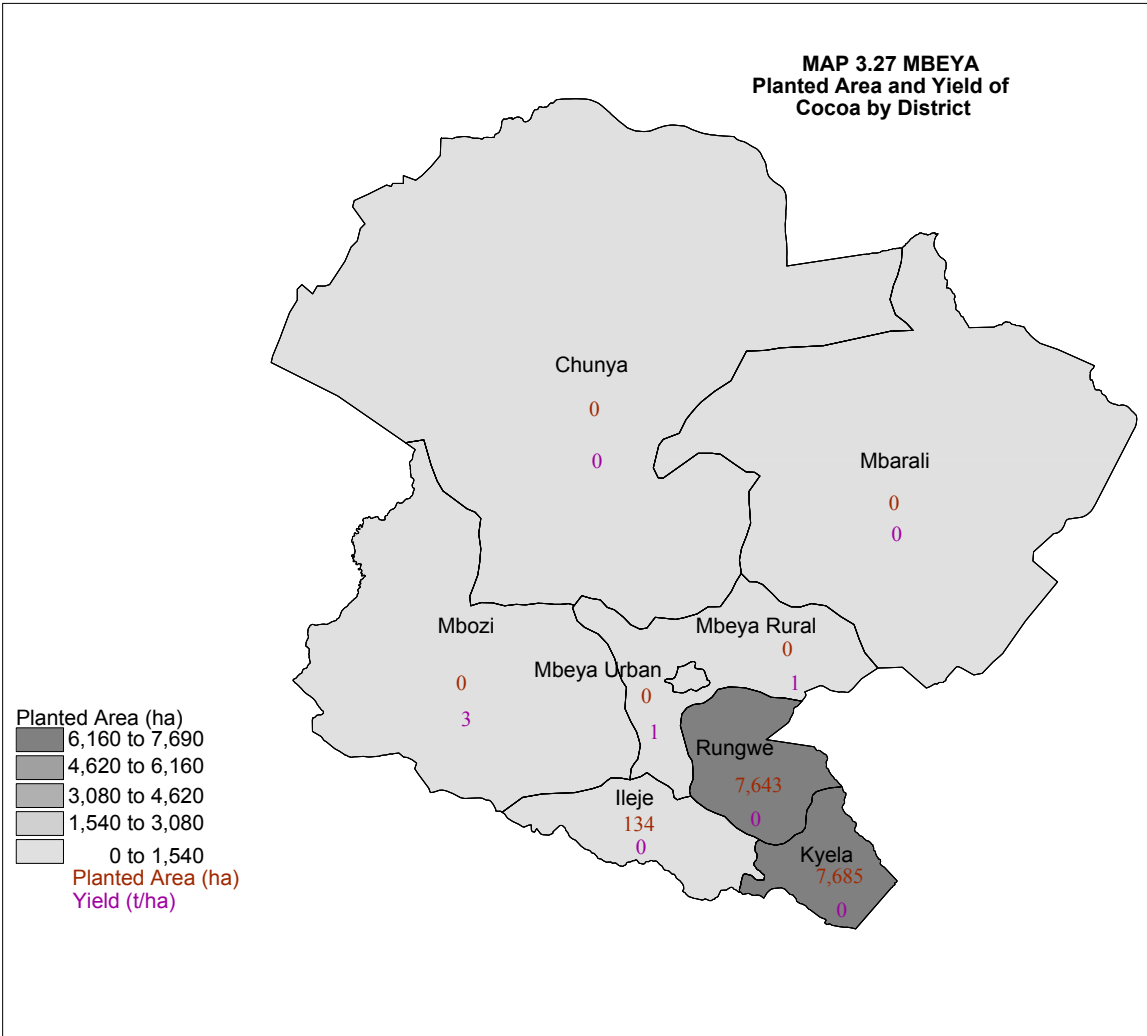


MAP 3.25 MBEYA
Planted Area and Yield of
Banana by District



MAP 3.26 MBEYA
Area Planted Per Banana
Growing Household
by Districts



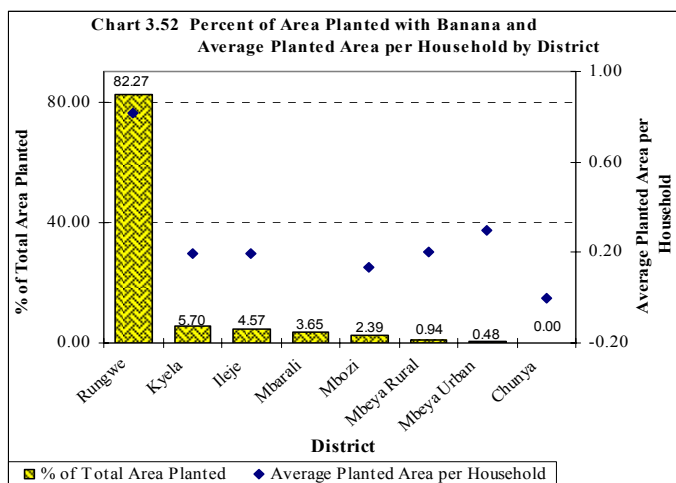


Mbozi district had the largest area of coffee in the region (31,692 ha, 53.3%) followed by Rungwe (19,761 ha, 33.2%), Mbeya Rural (5,071 ha, 8.5%) and Mbeya Urban (265 ha, 0.4%). However, there was no coffee production in Chunya, Ileje, Mbarali and Kyela districts. (Map 3.31).

Moreover, the average area planted with coffee per coffee growing household was highest in Rungwe (0.80 ha) followed by Mbozi (0.66 ha), Mbeya Urban (0.61 ha) and Mbeya Rural (0.47 ha) (Chart 3.52 and Map 3.32).

3.4.2 Banana

The total production of bananas by smallholders was 225,241 tonnes. In terms of area planted, banana was the second most important permanent crop grown by smallholders in the region. It was grown by 94,050 households (25.3% of the total crop growing households). The average area planted with banana per banana growing household was 0.6 ha per banana growing and the average yield obtained by smallholders was 8,766 kg/ha from a harvested area of 25,696 hectares.

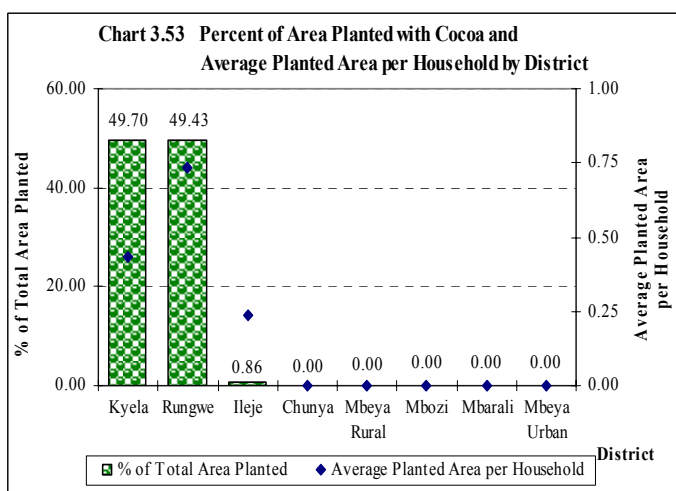


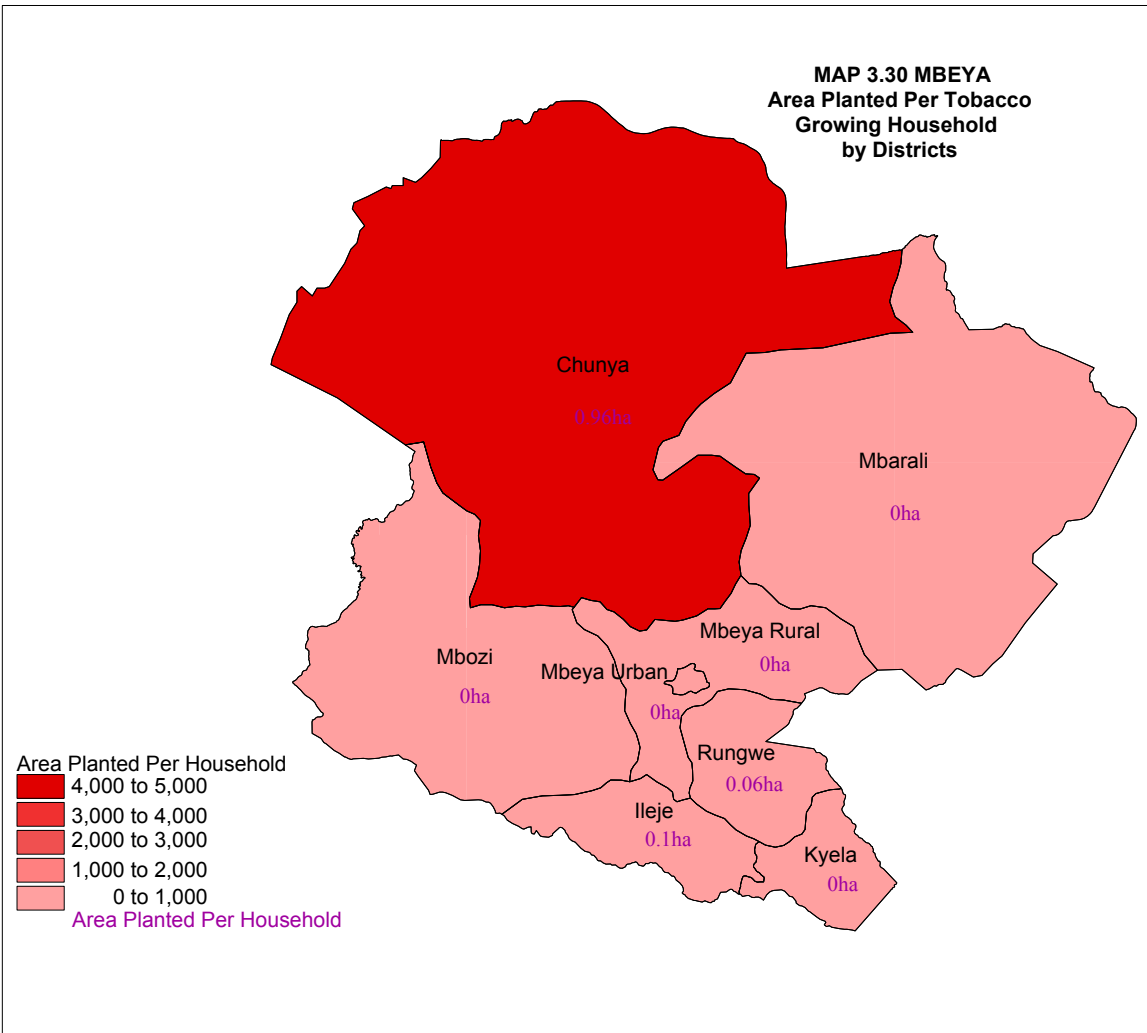
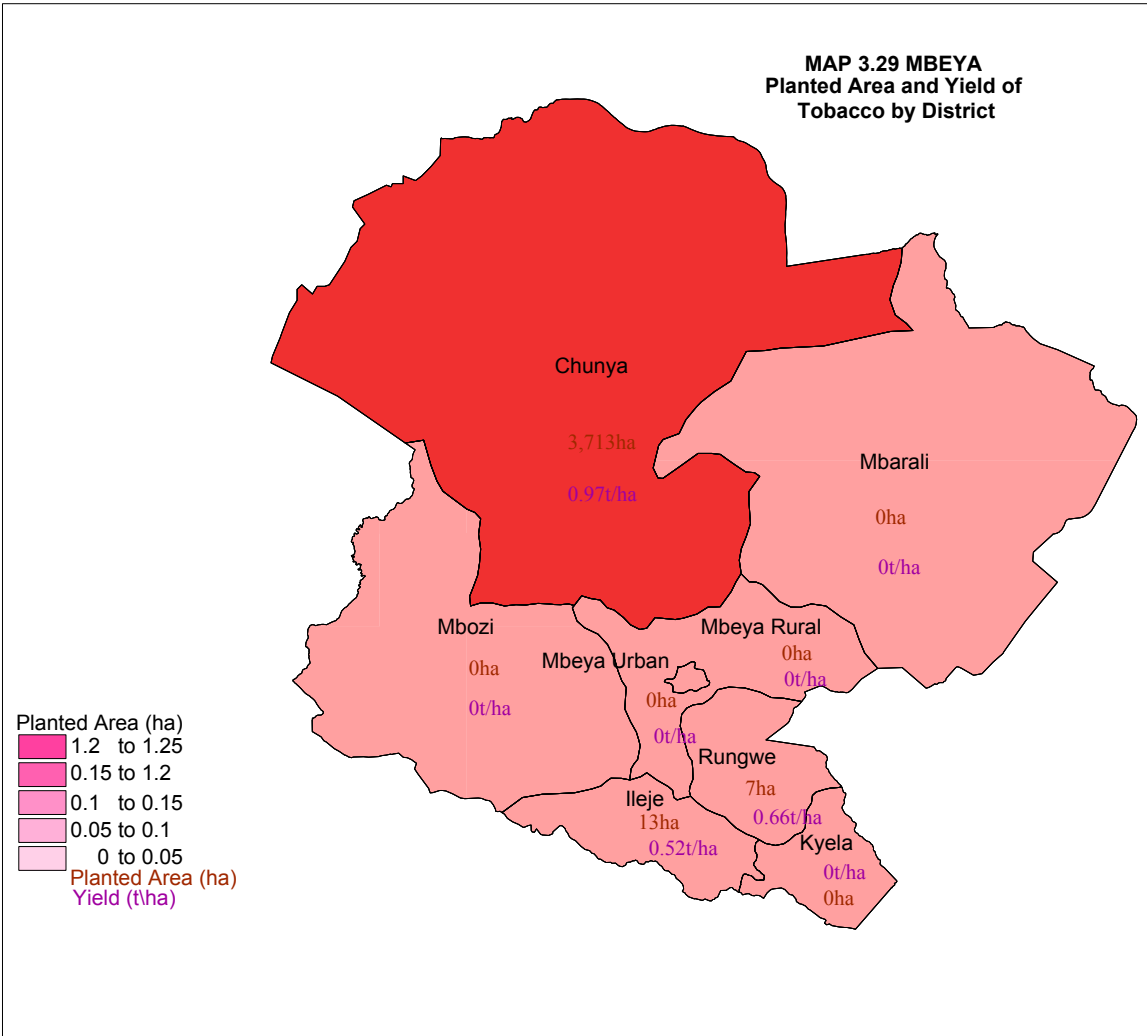
Rungwe had the largest planted area of bananas in the region (43,366 ha, 82.3%) followed by Kyela (3,007 ha, 5.7%), Ileje (2,408 ha, 4.6%), Mbarali (1,926 ha, 3.7%), Mbozi (1,259 ha, 2.4%), Mbeya Rural (493 ha, 0.9%) and Mbeya Urban (255 ha, 0.5%). Chunya district did not grow banana. The area planted with banana per banana growing household was highest in Mbarali (8.9 ha), followed by Rungwe (0.82 ha), Mbeya Urban (0.30 ha), Mbeya Rural (0.20 ha), Kyela and Ileje districts had (0.19 ha) each and Mbozi (0.14 ha) (Chart 3.49 and Map 3.36).

3.4.3 Cocoa

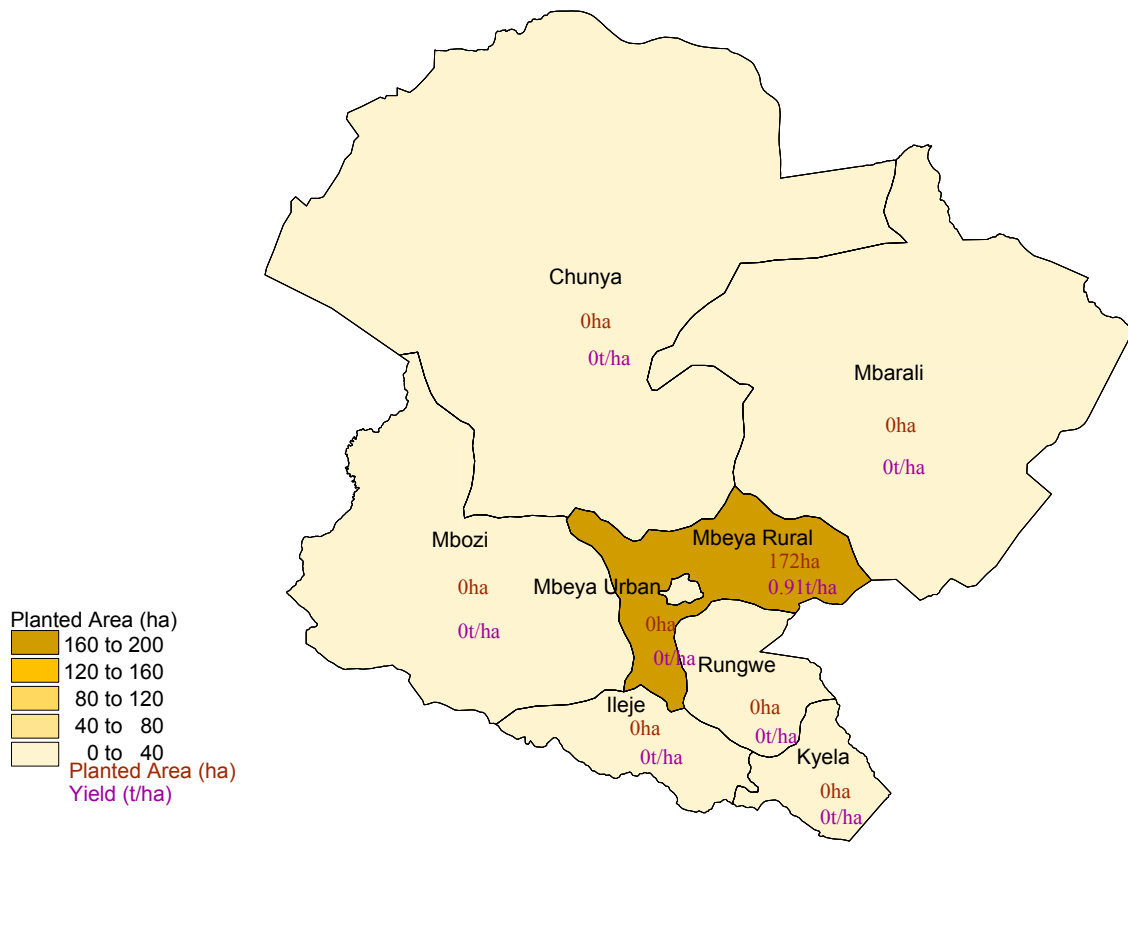
The total production of cocoa by smallholders was 5,418 tonnes. In terms of area planted, cocoa was the third most important permanent crop grown by smallholders in the region. It was grown by 28,615 households (7.7% of the total crop growing households). The average area planted with cocoa per household was relatively small at around 0.54 hectares per cocoa growing household and the average yield obtained by smallholders was 611 kg/ha from a harvested area of 8,871 hectares.

Kyela had the largest area of cocoa in the region (7,685 ha, 49.7%) followed by Rungwe (7,643 ha, 49.4%) and Ileje (134 ha, 0.9%). Chunya, Mbeya Rural, Mbozi, Mbarali and Mbeya Urban did not grow any cocoa (Map 3.33). However, the average area planted with cocoa per cocoa planting household was highest in Rungwe district with (0.73 ha) followed by Kyela (0.44 ha) and Ileje (0.24 ha) (Chart 3.53 and Map 3.34).

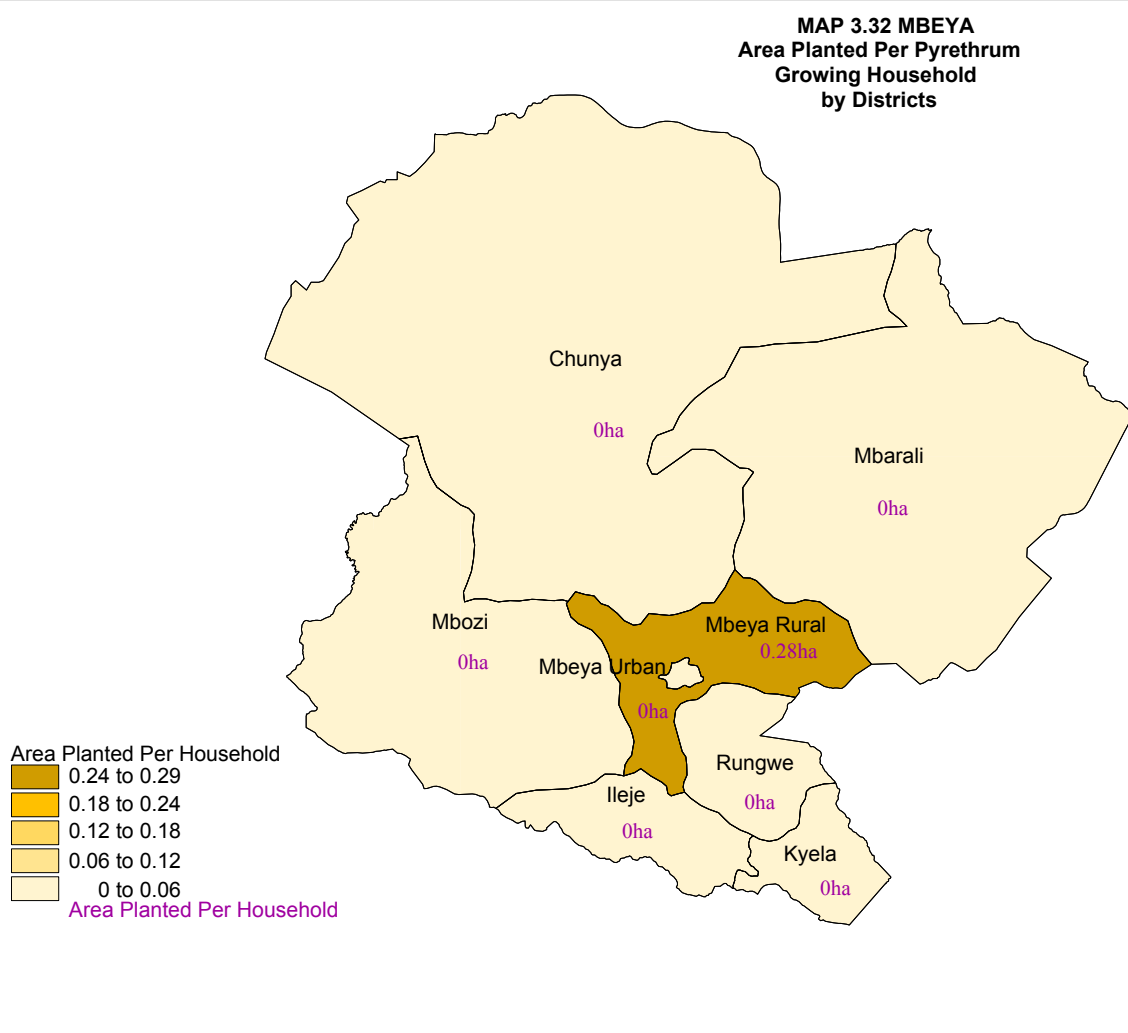


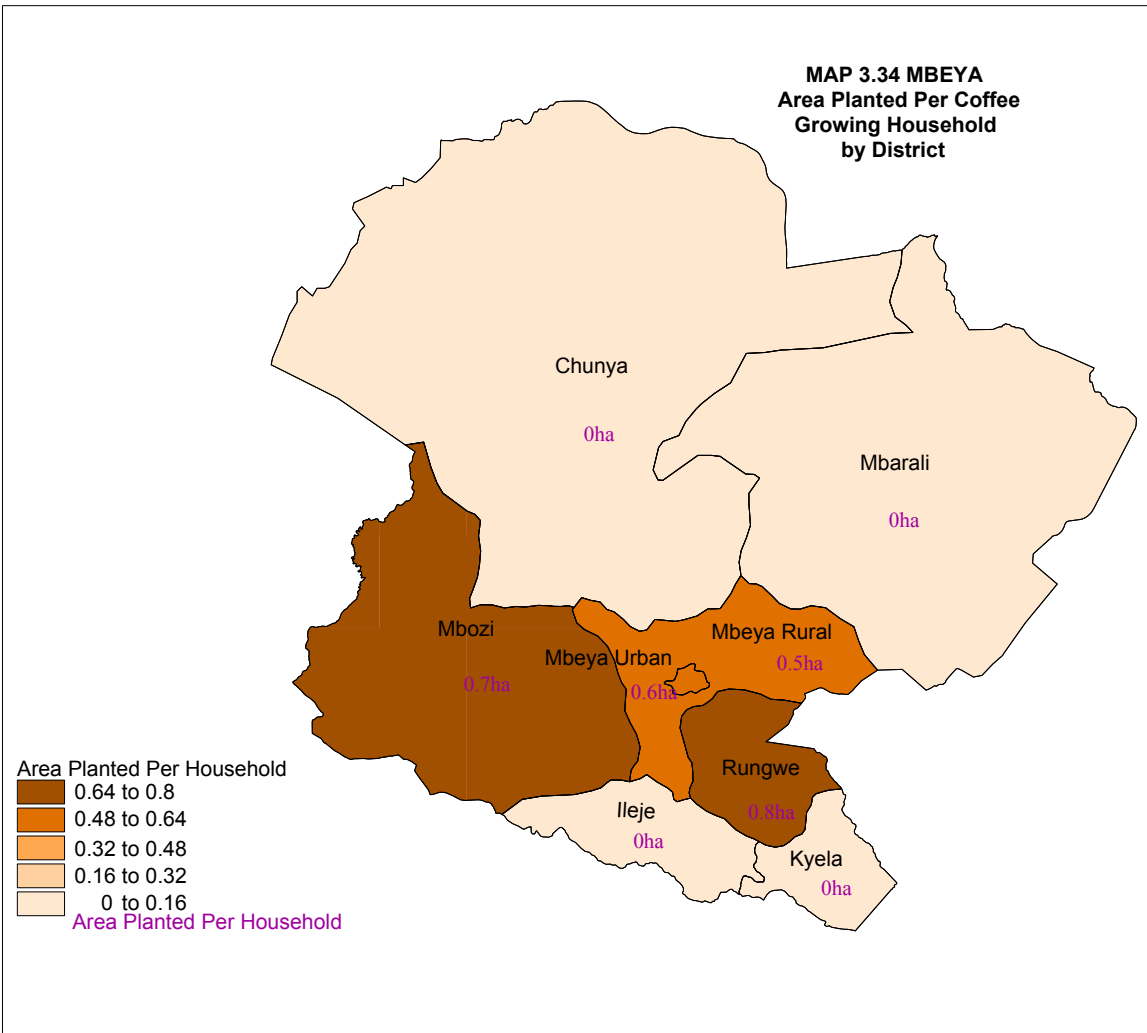
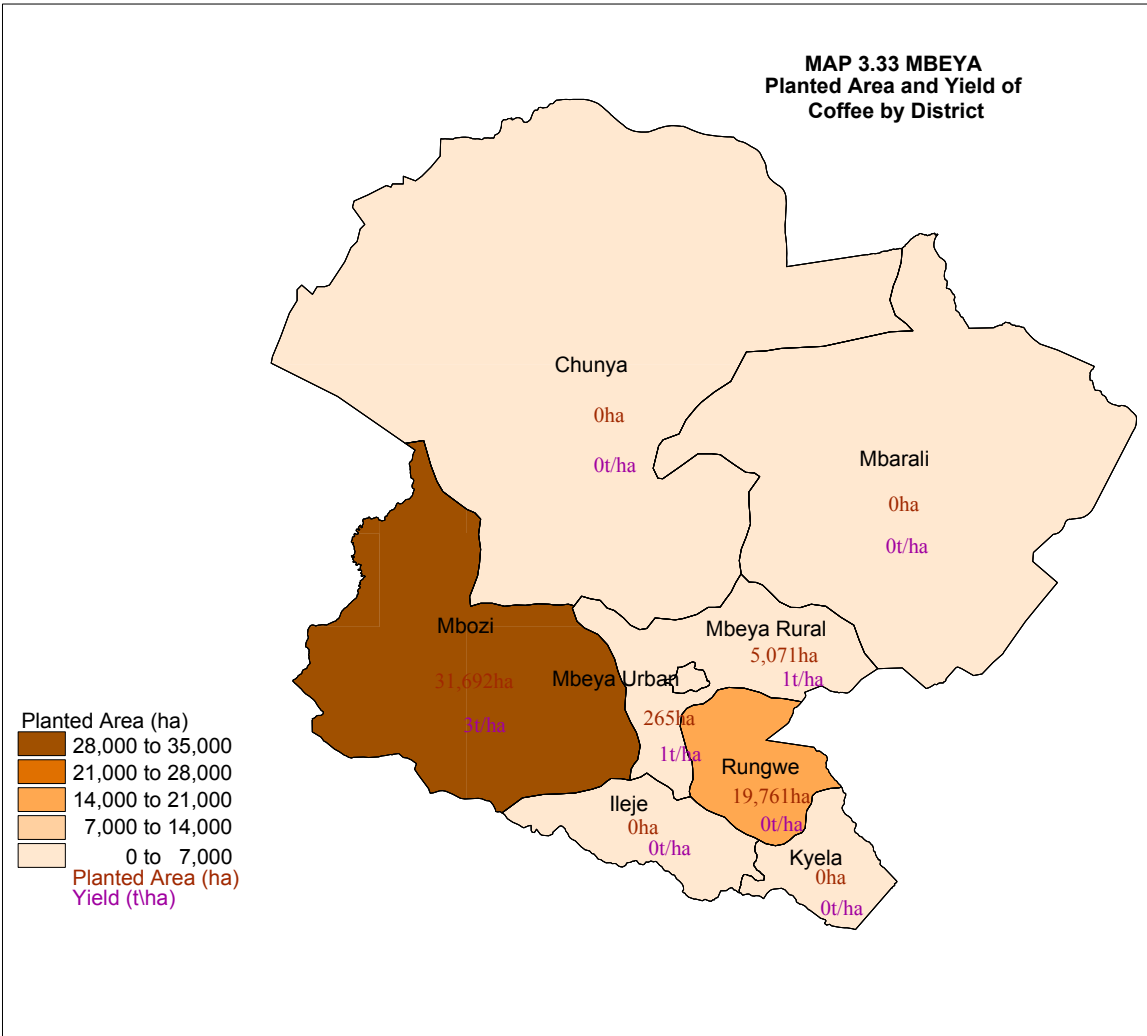


**MAP 3.31 MBEYA
Planted Area and Yield of
Pyrethrum by District**



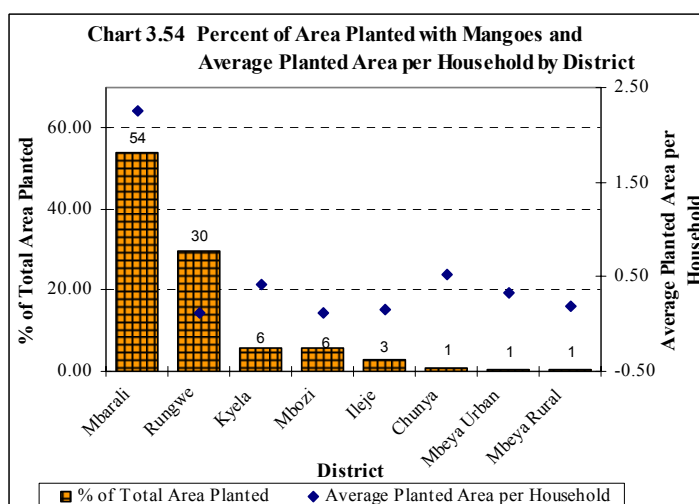
**MAP 3.32 MBEYA
Area Planted Per Pyrethrum
Growing Household
by Districts**





3.4.4 Mangoes

The total production of mangoes by smallholders was 12,251 tonnes. In terms of area planted, mangoes were the fourth most important permanent crop grown by smallholders in the region. It was grown by 16,272 households (4.4% of the total crop growing households). The average area planted with mangoes per household was relatively small at around 0.51 ha per mango growing household and the average yield obtained by smallholders was 6,821 kg/ha from a harvest area of 1,796 hectares.



Mbarali has the largest area of mangoes in the region (4,522 ha, 54.1%) followed by Rungwe (2,466 ha, 29.5%), Kyela (485 ha, 5.8%), Mbozi (477 ha, 5.7%), Ileje (245 ha, 2.9%), Chunya (80 ha, 0.9%), Mbeya Urban (42 ha, 0.5%) and Mbeya Rural (42 ha, 0.5%) (Map 3.37). However, the average area planted per mango growing household was highest in Mbarali (2.25 ha), followed by Chunya (0.52ha), Kyela (0.41 ha), Mbeya Urban (0.34 ha), Mbeya Rural (0.19 ha), Ileje (0.15 ha), Rungwe (0.12 ha) and Mbozi (0.11ha) (Map 3.38).

3.5 Input/Implement Use

3.5.1 Methods of Land Clearing

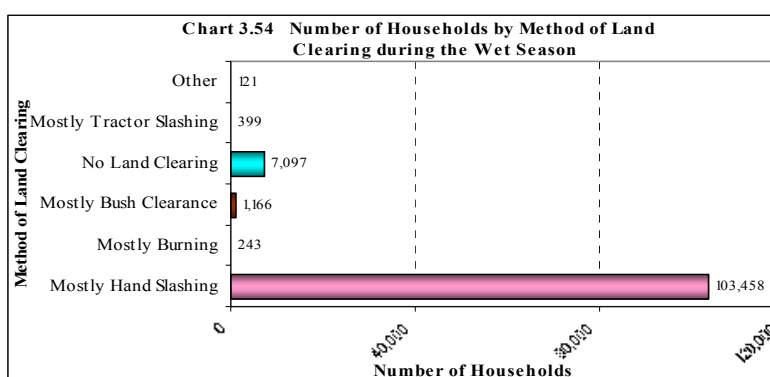
Land clearing is a common pre-tillage operation practiced by most farmers in the region. Land clearing is divided into two categories: bush clearing, which by definition implies expansion into virgin areas or into areas, which

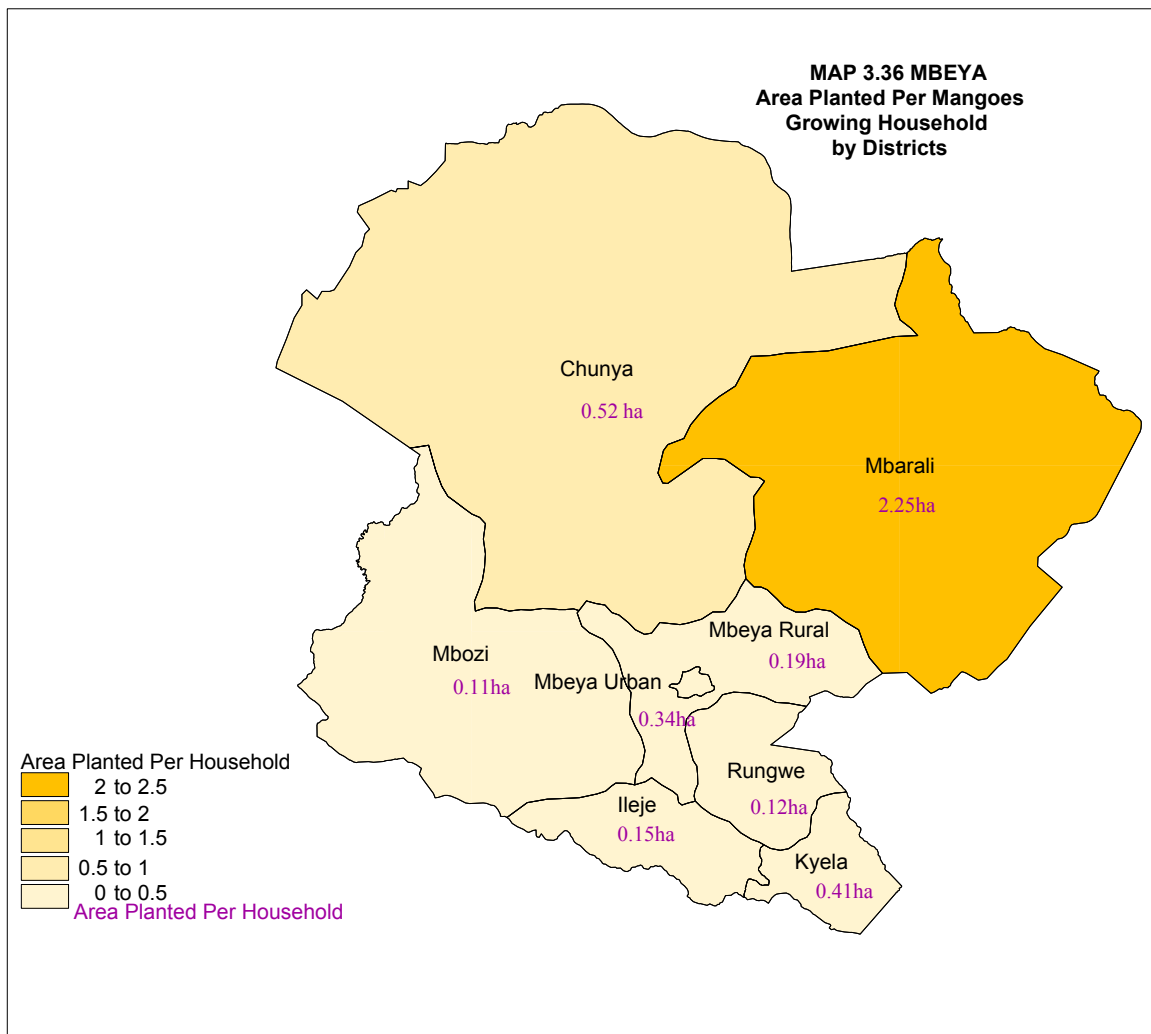
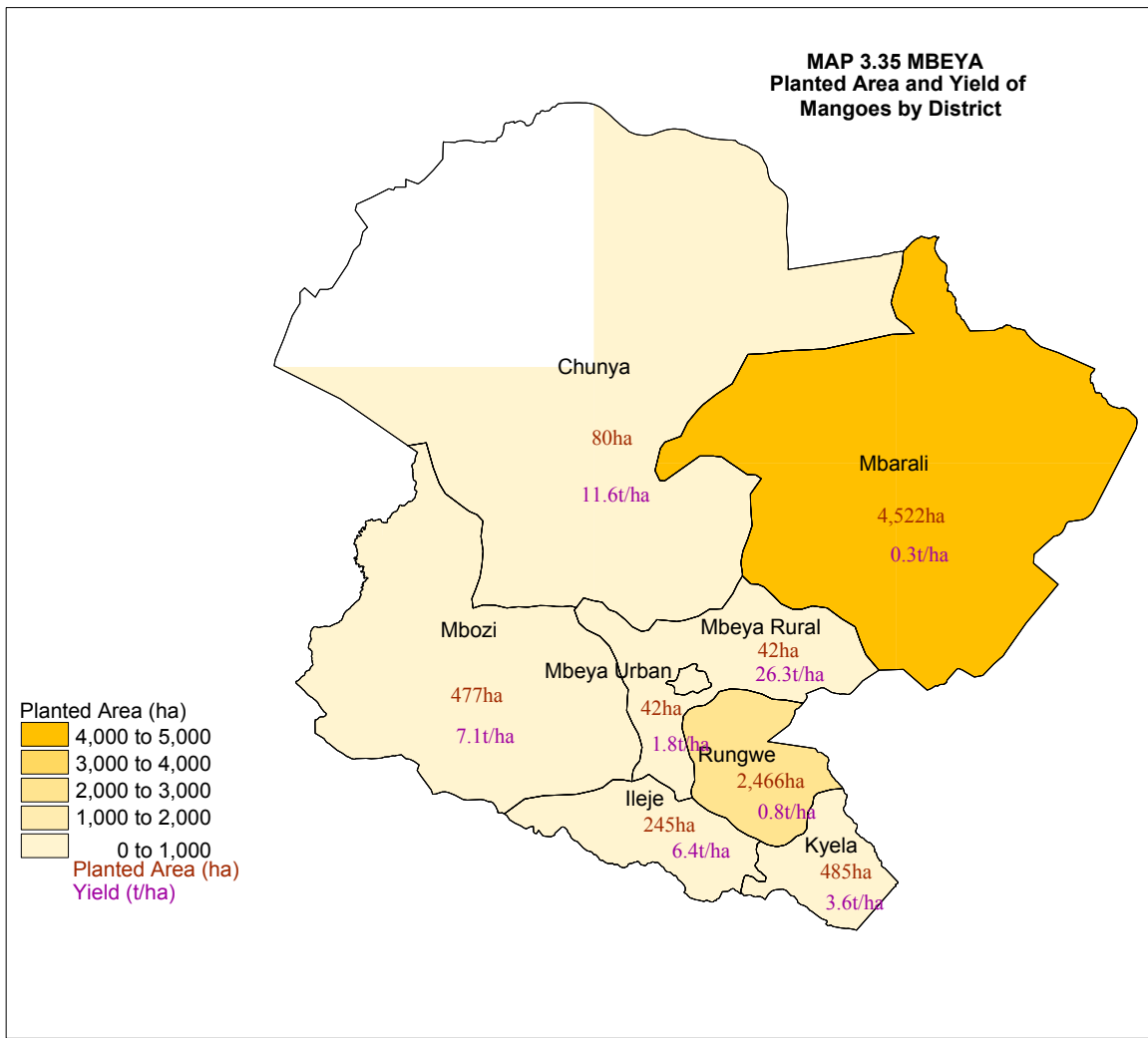
Table 3.8: Land Clearing Methods

Method of Land Clearing	Wet Season			Dry Season			Total		
	Number of Households	Area Planted	%	Number of Households	Area Planted	%	Number of Households	Area Planted	%
Mostly Hand Slashing	679,789	349,287	84.9	37,337	103,458	92.0	717,125	452,744	86.5
No Land Clearing	22,588	10,129	2.5	3,777	7,097	6.3	26,365	17,226	3.3
Mostly Bush Clearance	37,774	21,446	5.2	273	1,166	1.0	38,047	22,612	4.3
Mostly Burning	49,003	28,877	7.0	49	243	0.2	49,052	29,120	5.6
Mostly Tractor Slashing	2,953	1,325	0.3	108	399	0.4	3,060	1,724	0.3
Other	49	121	0.0	49	121	0.1	98	243	0.0
Total	792,156	411,185	100.0	41,592	112,484	100.0	833,749	523,669	100.0

have been left fallow for a long period. The other category, which includes burning, hand slashing or tractor slashing, is normally an annual clearing exercise to remove vegetation growth from the previous season.

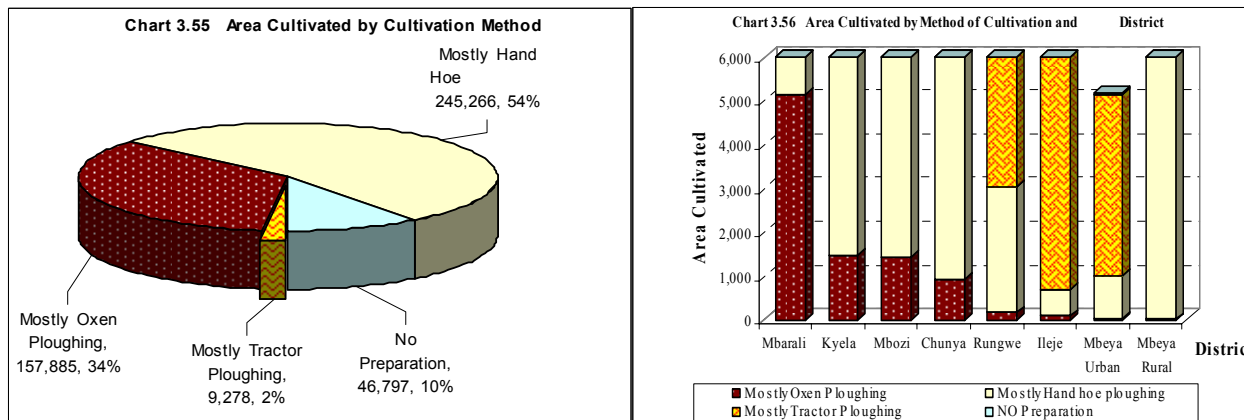
Hand slashing was the most widespread method used for land clearing. The area cleared by hand slashing in the region during the wet season was 349,287 hectares which represented 84.9 percent of the total planted area. Bush clearance, burning and tractor slashing are less important methods for land clearing and they represent 5.2, 1.0 and 0.3 percent respectively. However, 2.5 percent of agricultural households did not clear their land (Chart 3.54 and Table 3.8).





3.5.2 Methods of Soil Preparation

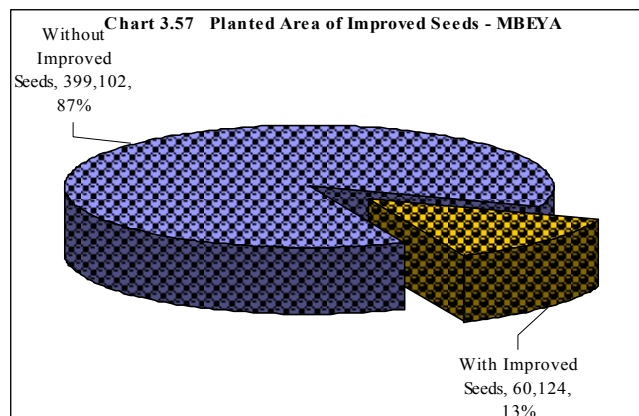
Hand cultivation is mostly used for soil preparation with an area of 245,266 hectares (60 percent of the total planted area) followed by ox-ploughing (157,885 ha, 38%) and tractor ploughing (9,278 ha, 2%) (Chart 3.55)



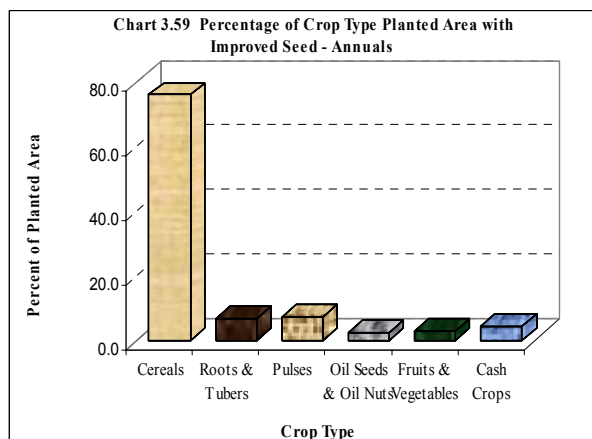
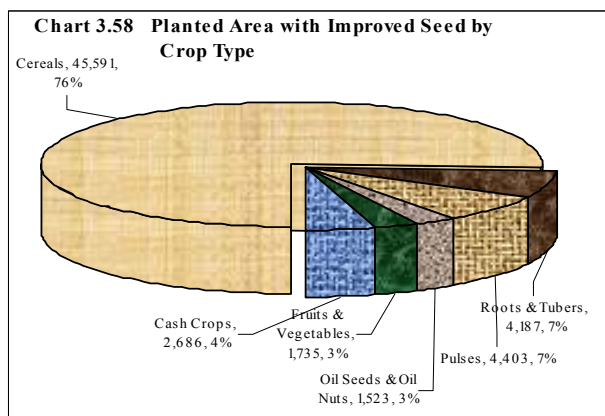
In Mbeya region, Mbarali district has the largest planted area cultivated with oxen (5,131 hectares, 8.2%) followed by Kyela (1,472 ha, 4.8%) Chunya (923 ha, 1.3%) and Mbozi (1,432 ha, 1%). While, Rungwe, Ileje and Mbeya Urban had the same percentage of (0.3 %). Mbeya Rural had a very low percentage (0.02%) of area cultivated by ox-plough. (Chart 3.56).

3.5.3 Improved Seed Use

The planted area with improved seeds was estimated at 60,124 ha which represented 13 percent of the total area planted with annual crops and vegetables. The percentage use of improved seed in the wet season was 12.4 percent, which was lower than the corresponding percentage use for the dry season (19.9%).



Cereals had the largest area planted with improved seeds (45,591 ha, 75.8% of the planted area with improved seeds). This was followed by pulses (4,403 ha, 7.3%), roots and tubers (4,187 ha, 7.0%), cash crops (2,686 ha, 4.5%), fruit and vegetable was more than in other crop types being 76% and 7% respectively. Only 2.5 percent of the planted area for oil seed crops used improved seeds (Chart 3.59).



3.5.4 Fertilizer Use

The use of fertilisers on annual crops was relatively small with its application on a planted area of only 162,977 ha (35 % of the total area planted with annual crops in the region). The planted area without fertiliser for annual crops was 296,249 hectares representing 65 percent of the total area planted with annual crops. Inorganic fertiliser was applied to only 83,890 hectares which represented 18.3 percent of the total planted area (51.5% of the area planted with fertiliser application in the region). This was followed by farm yard manure (55,610 ha, 12%) and compost was used on a very small area of 23,477 hectares (5%). The highest percentage of the area planted with fertilizer (all types) was in Mbozi district (36.3%) followed by Mbeya Rural (19.5%), Rungwe (13.8%), Ileje (10.0%), Chunya (9.8%), Mbarali (5.1%), Kyela (3.2%) and Mbeya Urban (2.4%) (Table 3.9 and Charts 3.62 and 3.63).

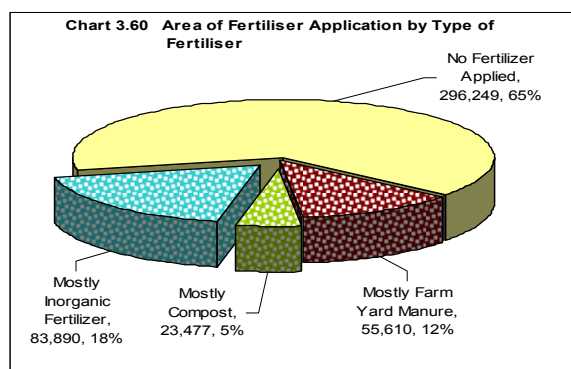
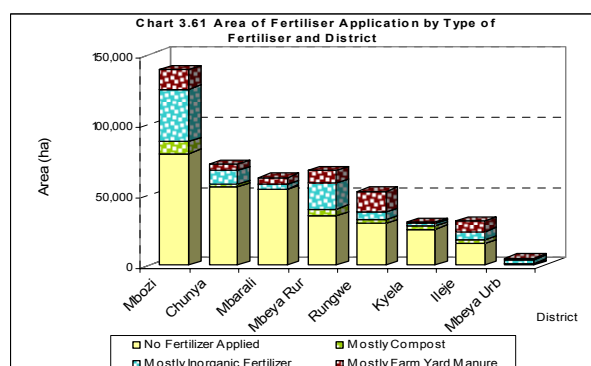


Table 3.9 Planted Area by Type of Fertiliser Use and District - Long and Short Rainy Seasons (Combined)

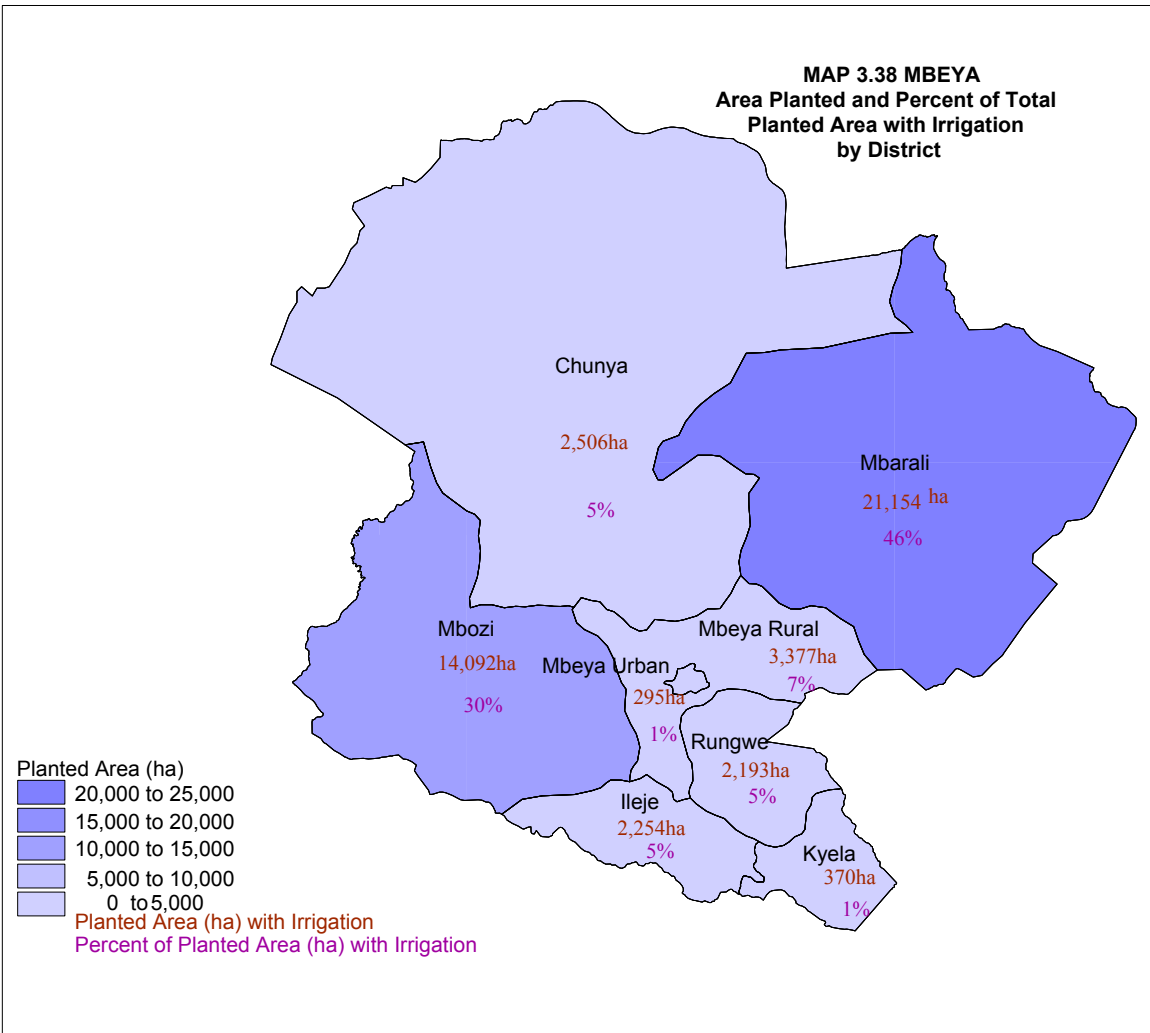
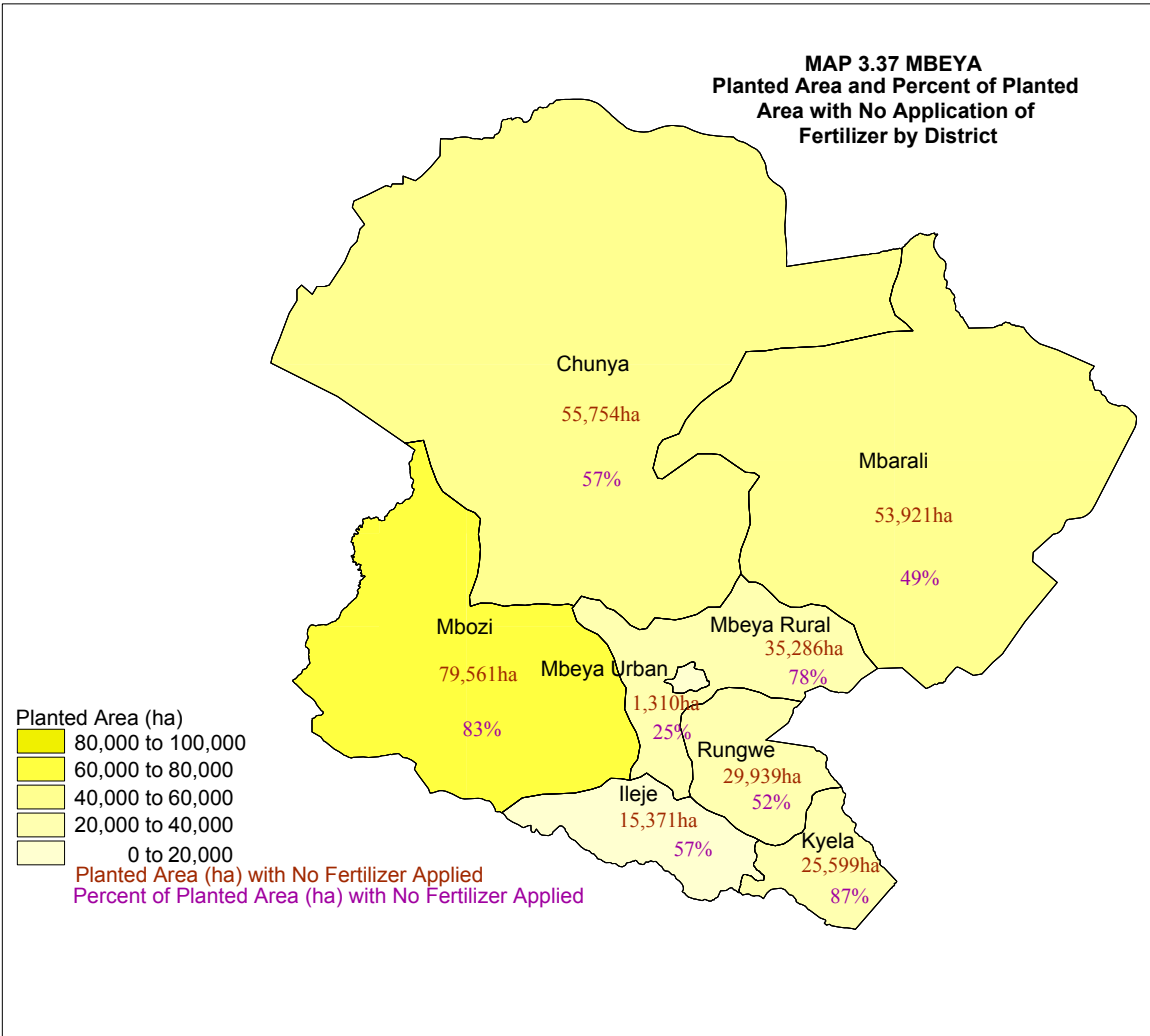
District	Fertilizer Use			Total	No Fertilizer Applied
	Mostly Farm Yard Manure	Mostly Compost	Mostly Inorganic Fertilizer		
Chunya	4,555	1,744	9,736	16,034	55,754
Mbeya Rur	8,644	4,961	18,365	31,970	35,286
Kyela	1,073	2,559	1,561	5,193	25,599
Rungwe	14,610	2,705	5,211	22,526	29,939
Ileje	7,669	2,958	5,669	16,296	15,371
Mbozi	13,605	8,297	37,408	59,309	79,561
Mbarali	4,784	345	3,248	8,378	53,921
Mbeya Urb	994	185	2,703	3,882	1,310
Total	55,933	23,754	83,900	163,587	296,742



Most annual crop growing households did not use any fertiliser (approximately 190,356 households, 51.2%) of total crop growing households (Map 3.39). The percentage of the planted area with applied fertiliser was highest for fruit and vegetables (78% of the area planted with fruits and vegetables during the wet season was applied with fertilizers. This was followed by roots and tubers (17%), pulses (13%), cereals (12%) and oil seeds (6%). There was no fertiliser application in cash crops (Chart 3.61).

Table 3.10: Number of Crop Growing Households and Planted Area by Type of Fertilizer Use and District – Wet Season

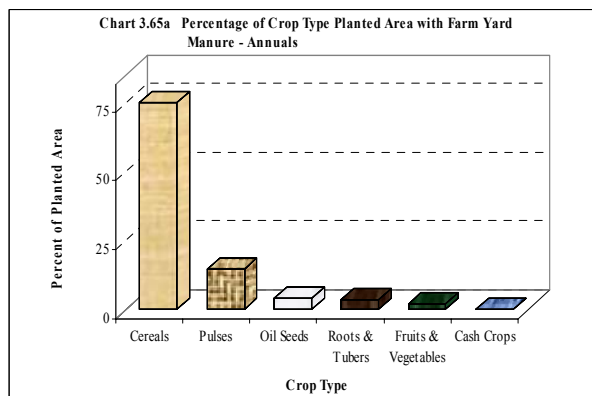
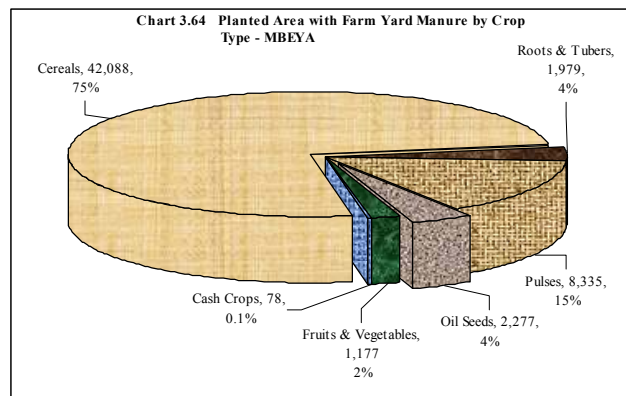
District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Chunya	3,198	4,555	1,139	1,744	6,425	9,736	31,837	55,754	38,262	71,788
Mbeya Rur	13,327	7,475	5,433	4,410	22,493	15,819	31,372	29,098	53,865	56,801
Kyela	1,947	1,073	5,284	2,559	1,278	1,561	32,914	25,599	34,192	30,792
Rungwe	36,185	5,211	16,726	1,740	16,624	1,087	50,700	17,393	67,323	25,431
Ileje	13,811	5,632	8,745	2,612	10,803	5,041	15,016	13,165	25,819	26,451
Mbozi	32,105	13,605	18,434	8,297	54,690	37,408	48,796	79,561	103,486	138,870
Mbarali	4,369	4,784	201	345	3,206	3,248	39,512	53,921	42,718	62,299
Mbeya Urb	2,637	992	361	176	4,834	2,694	2,346	1,291	7,180	5,153
Total	107,580	43,326	56,324	21,882	120,352	76,594	252,492	275,783	372,844	417,585



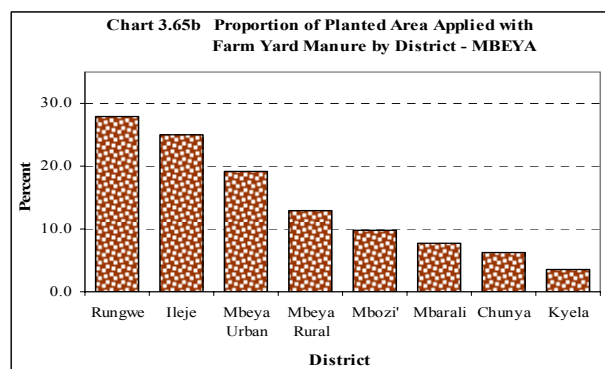
Most annual crop growing households did not use any fertiliser (approximately 190,356 households, 51.2%) of total crop growing households (Map 3.39 and table 3.9)). The percentage of the planted area with applied fertiliser was highest for fruit and vegetables (78% of the area planted with fruits and vegetables during the wet season was applied with fertilizers. This was followed by roots and tubers (17%), pulses (13%), cereals (12%) and oil seeds (6%). There was no fertiliser application in cash crops (Table 3.10).

3.5.4.1 Farm Yard Manure Use

The total planted area applied with farm yard manure in Mbeya region was 55,610 hectares. The number of households that applied farm yard manure on their annual crops during the wet season was 42,630 and it was applied to 43,004 hectares



representing 10.3 percent of the total area planted during that season (Table 3.10). However, cereals had the highest percent (75%) of the planted area applied with farm yard manure followed by pulses (15%), roots and tubers and oilseeds with (4%) each, fruit and vegetables (2%) and cash crops (0.1). Fruit and vegetables had the highest proportion (34%) of planted area applied with farm yard manure followed by cereals and pulses with (14%) each, roots & tubers (9%), oil seeds (8%) and cash crops (2%).(Charts 3.64 and 3.65a).



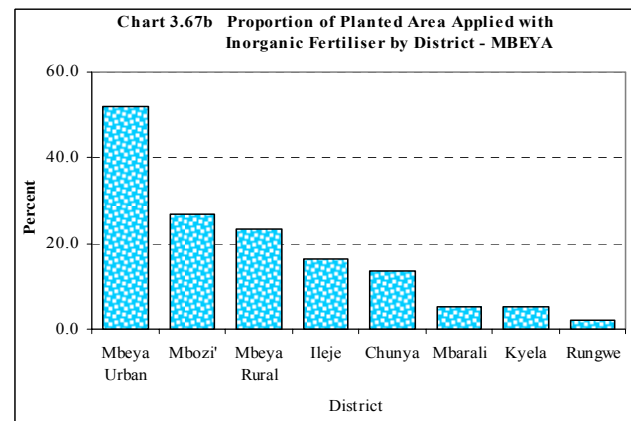
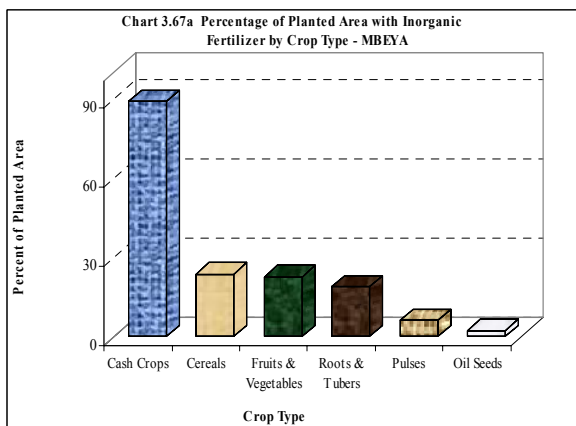
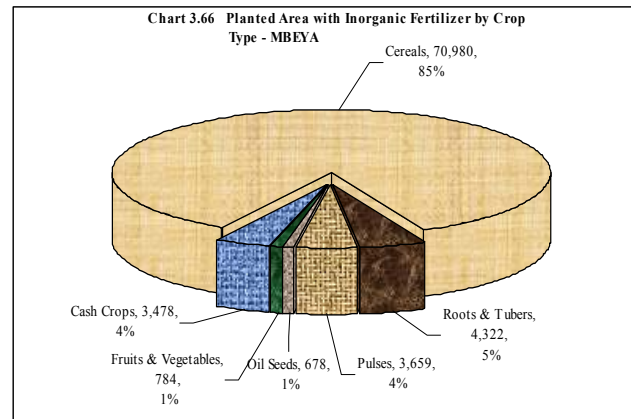
Farm yard manure was mostly used in Rungwe district (27.8% of the total planted area in the district), followed by Ileje (25.1%), Mbeya Urban (19.1%), Mbeya Rural (12.9%), Mbozi (9.8%), Mbarali (7.7%), Chunya (6.3%) and Kyela (3.5%) (Chart 3.65b). For permanent crops, most farm yard manure was used in the production of passion fruits (40.8% of the area planted with passion fruits, followed by apples (31.8%) and coffee (25.7%).

3.5.4.2 Inorganic Fertiliser Use

The total planted area applied with inorganic fertilisers in Mbeya region was 83,890 hectares which represented 18.3 percent of the total area planted with annuals in the region and 51.5 percent of the total planted area with fertilisers. The number of households that applied inorganic fertilizers on their annual crops during the wet season was 89,672 and it was applied to 76,583 hectares representing 18.3 percent of the total area planted during that season (Table 3.10). The largest planted area applied with inorganic fertilizers was in regard to cereals (84.6% of the total area applied with inorganic fertilizers), followed by roots and tubers (5.2%), pulses (4.4%), cash crops (4.1%), fruit and vegetables (0.9%) and oil seeds (0.8%) (Chart 3.66). However, cash crops had the highest percentage of planted area applied with inorganic

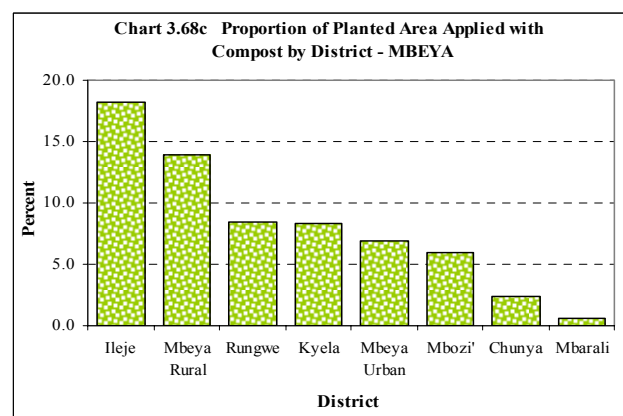
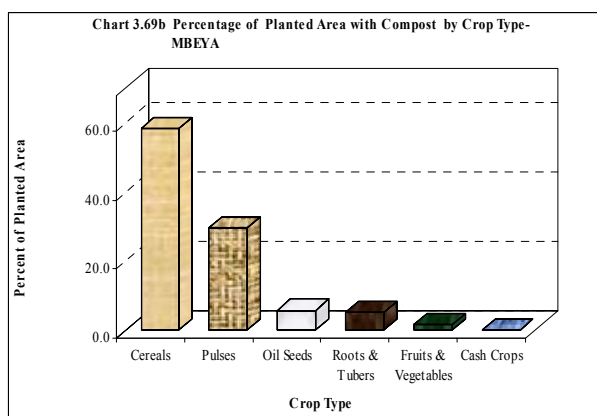
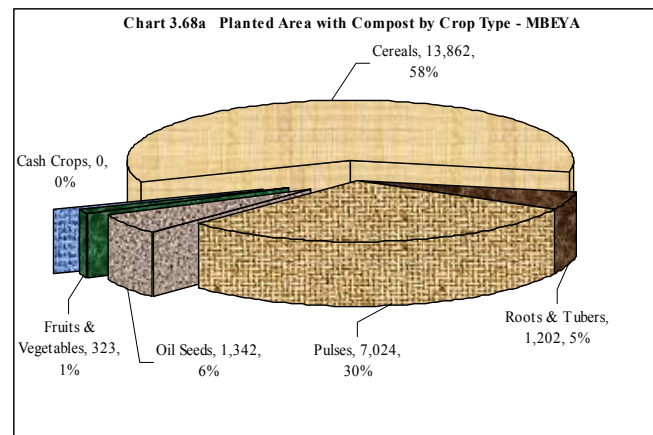
fertilizers (89%) followed by cereals (24%), fruits & vegetables (23%), roots & tubers (19%), pulses (6%) and oil seeds (2%) (Chart 3.67a). Inorganic fertiliser was mostly used in Mbeya Urban (51.9% of the total planted area in the district), followed by Mbozi (26.9%), Mbeya Rural (23.5%), Ileje (16.5%), Chunya (13.6%), Mbarali (5.2%), Kyela (5.1%) and Rungwe (2.1%). (Chart 3.67b).

In permanent crops inorganic fertiliser were used on tea (5.2%), followed by sugarcane (1.1%), coconut (0.3%), mangoes (0.15%) and oranges (0.14%).



3.5.4.3 Compost Use

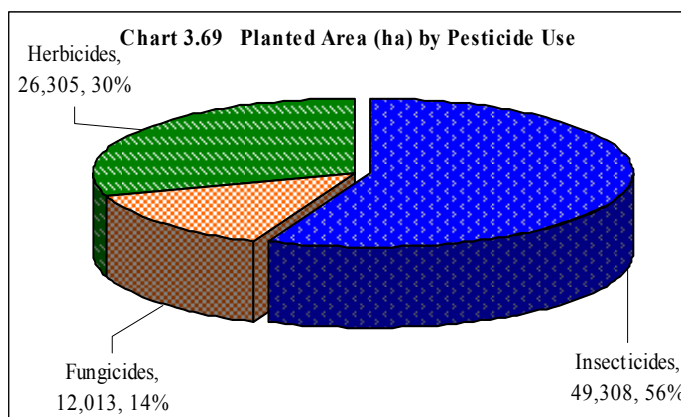
The total planted area applied with compost was 23,477 ha which represented only 5.1 percent of the total area planted with annual crops in the region and 14.4 percent of the total area applied with fertilizers in the region. The number of households that applied compost in their annual crops during the wet season was 15,720 and it was applied to 21,606 hectares representing 5.2 percent of the total area planted



(Table 3.10 and Chart 3.68a). The proportion of area applied with compost was highest for pulses (12%), followed by fruits & vegetables (9.4%), roots & tubers (5.2%) and cereals and oil seeds with (4.6%) each. No compost manure was applied to cash crops. (Chart 3.68b). Compost was mostly used in Ileje (18.2% of the total planted area in the district), followed by Mbeya Rural (13.9%), Rungwe (8.5%), Kyela (8.3%), Mbeya Urban (6.9%), Mbozi (6.0%), Chunya (2.4%) and Mbarali (1%). (Chart 3.67b). In permanent crops, compost was mostly used in the growing of durian (100.0%) followed by cloves (8.6%), pears (7.8%), avocado (5.3%) cinnamon (4.7%) and mango (4.0%).

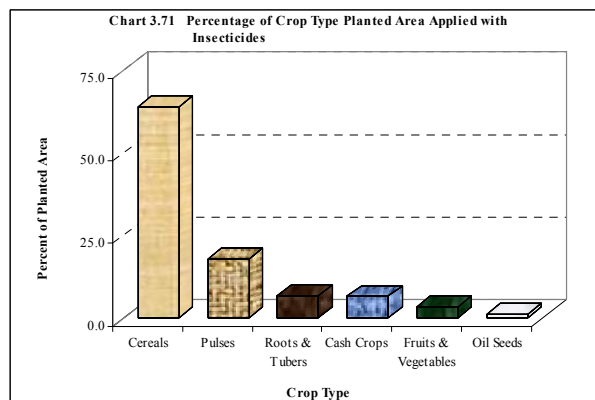
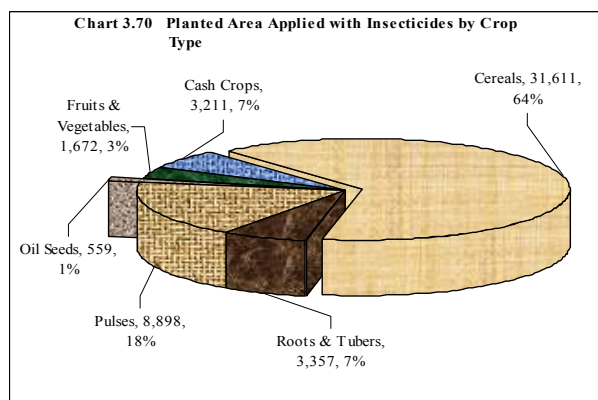
3.5.5 Pesticides Use

Pesticides are chemicals used for controlling insects, diseases and weeds. This section analyses the use of these chemicals by smallholders on both annual and permanent crops in the region. Pesticides were applied to a planted area of 87,626 ha of annual crops and vegetables. Insecticides were the most common pesticide used in the region (56% of the total area applied with pesticides). This was followed by herbicides (30%) and fungicides (14%) (Chart 3.69).

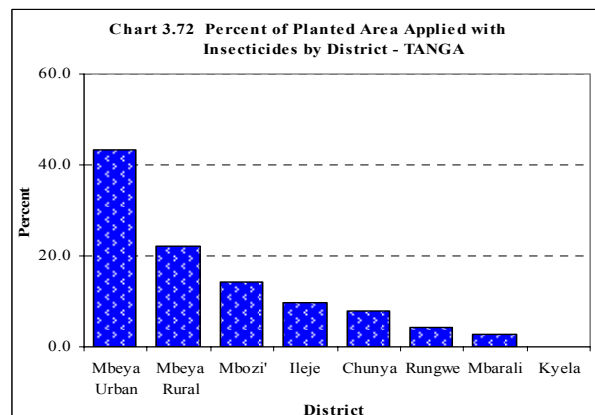


3.5.5.1 Insecticide Use

The planted area applied with insecticides was estimated at 49,308 ha which represented 10.7 percent of the total area planted with annual crops and vegetables.



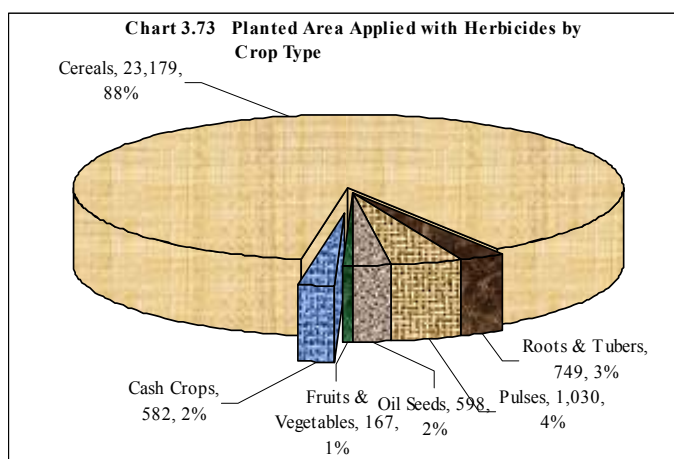
Cereals had the largest planted area applied with insecticides (31,611 ha, 64.1% of the total planted area with insecticides) followed by pulses (8,898 ha, 18.0%), roots and tubers (3,357 ha, 6.8%), cash crops (3,211 ha, 6.5%) fruit and vegetables (1,672 ha, 3.4%), and oil seed (559 ha, 1.1%) (Chart 3.70 and Chart 3.71). Annual crops with more than 50 percent insecticide application were spinach (100%), cucumber (100%), cotton (100%), water melloon (85.4%), tomatoes (83.3%), onions (75.7%), cabbage (71.3%), field peas (56.6%) and chillies (52.2%).



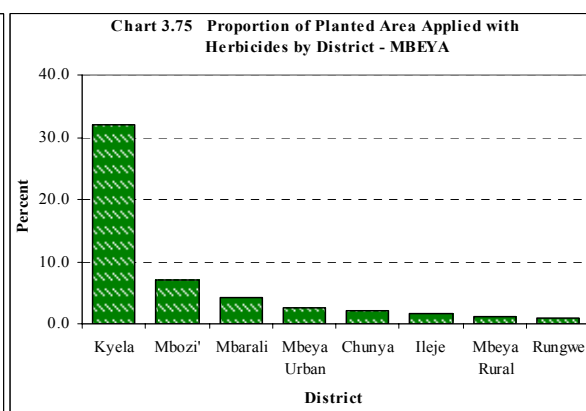
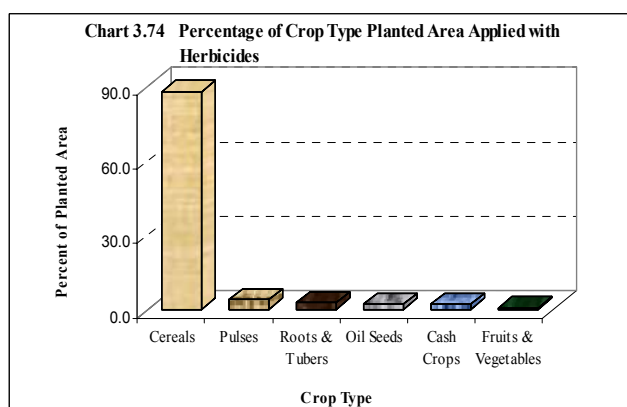
Mbeya Urban district had the highest percent of planted area applied with insecticides (43.5% of the total planted area with annual crops in the district). This was followed by Mbeya Rural (22.1%), Mbozi (14.1%), Ileje (9.7%), Chunya (7.7%), Rungwe (4.4%) and Mbarali (2.8%). The least use was recorded in Kyela district (0.1%) (Chart 3.72).

3.5.5.2 Herbicide Use

The planted area applied with herbicides was 26,305 hectares which represented 5.7 percent of the total area planted with annual crops and vegetables. Cereals had the largest planted area applied with herbicides (23,179 ha, 88.1%) followed by pulses (1,030 ha, 3.9%), roots and tuber (749 ha, 2.8%), oil seed (598 ha, 2.3%), cash crops (582 ha, 2.2%) and fruits and vegetables (167 ha, 0.6%) (Chart 3.73).



Cereals had the highest percentage of the planted area applied with herbicides and fruits and vegetables had the least percentage (0.6 percent) (Chart 3.74). The top six annual crops with the highest percentage use of herbicides in terms of planted area were maize (44%), paddy (41%), beans (4%), tobacco (4%), sorghum (1.2%) and sweet potatoes and irish potatoes (1.2%) each



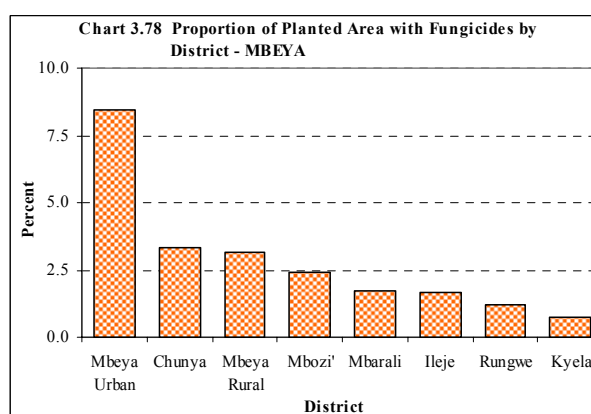
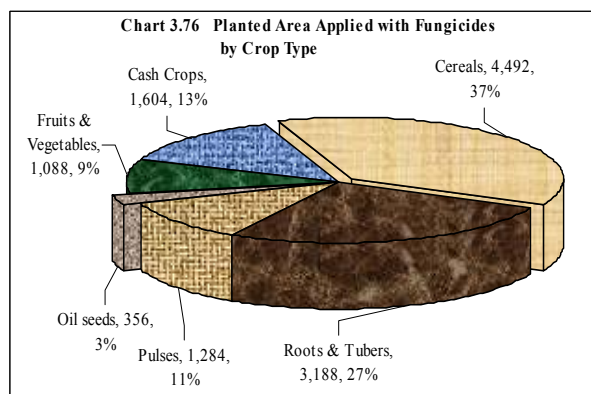
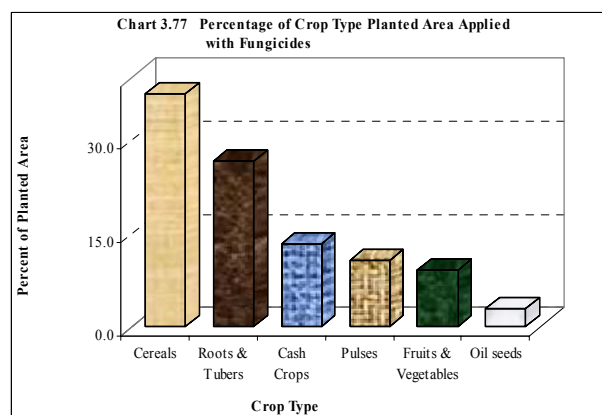
Kyela district had the highest percent of planted area applied with herbicides (32% of the total planted area for annual crops in the district). This was followed by Mbozi (7.1%), Mbarali (4.3%), Mbeya Urban (2.5%), Chunya (2.2%), Ileje (1.6%), Mbeya Rural (1.3%) and Rungwe (1.0%).

3.5.5.3 Fungicide Use

The planted area applied with fungicides was 12,013 ha which represented 2.6 percent of the total planted area for annual crops and vegetables. The percentage use of fungicides in the long rainy season was 2.3 % higher than the corresponding percentage in short rainy season at (0.3%). However, cereals had the largest planted area applied with fungicides (4,492 ha, 37.4%) followed by roots and tubers (3,188 ha, 26.5% cash crops (1,604 ha, 13.4%), pulses (1,284 ha, 10.7%), fruits & vegetables (1,088 ha, 9.1%) and oil seeds (356 ha, 3.0%) (Chart 3.76).

However, the percentages use of fungicides was highest in cereals and roots and tubers being 37% and 27% respectively, while the least use was in regard to pulses at 3.0 percent only (Chart 3.77). Annual crops with more than 10 percent fungicide use were maize (26%), irish potatoes (19%), tobacco (15%) and beans (12%).

Mbeya Urban district had the highest percent of planted area with fungicides (8.5% of the total planted area with annual crops in the district) followed by Chunya (3.3%), Mbeya Rural (3.1%), Mbozi (2.4%), Mbarali and Ileje had (1.7%) each and Rungwe (1.2%). The smallest percentage use was recorded in Kyela (0.8%) (Chart 3.78).



3.5.6 Harvesting Methods

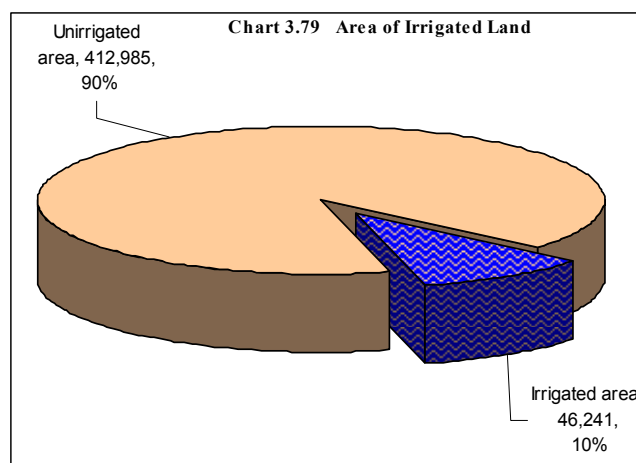
The main harvesting method for cereals was reported to be by hand. Very small amounts of maize were harvested by machine (0.2%) All other cereals and annual crops were harvested by hand.

3.5.7 Threshing Methods

Hand threshing was the most common method used, with 89 percent of the total area planted with cereals during the wet season being threshed by hand. Draft animals, human powered tools and engine driven machines were only used on crops harvested from 0.1%, 0.1% and 0.2 % of the total planted area respectively.

3.6 Irrigation

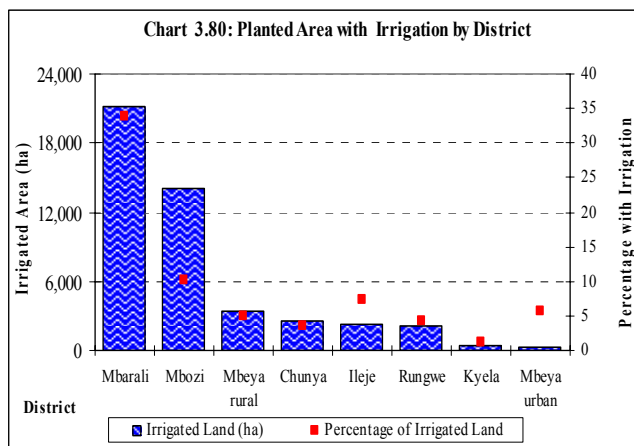
Water is the limiting factor to crop production in the majority of areas in Tanzania and without water most other agricultural practices applied to crops do not result in significant increases in yields. This section deals with the area under irrigation for different crops and the means by which water was extracted from the source and applied to the field.



3.6.1 Area Planted with Annual Crops and Under Irrigation

In Mbeya region, the area of annual crops under irrigation was 46,241 ha representing 10 percent of the total area planted (Chart 3.79). The area under irrigation during the dry season was 3,229 ha accounting for 7 percent of the total area under irrigation. Some crops, especially vegetables, were predominantly grown in the short rainy season with irrigation. In the short rainy season, 59.3 percent of the area planted with cereals was irrigated, whilst 72.1 percent of the cereals were irrigated in the wet season.

The district with the largest planted area under irrigation for annual crops was Mbarali (21,154 ha, 47.7% of the total irrigated planted area with annual crops in the region). This was followed by Mbozi (14,092 ha, 30.5%), Mbeya Rural (3,377 ha, 7.3%), Chunya (2,506 ha, 5.4%), Ileje (2,254 ha, 4.9%), Rungwe (1,193 ha, 4.7%), Kyela (370 ha, 0.8%) and Mbeya Urban (295 ha, 0.6%). Proportionally, Mbarali district had the highest planted area (34 percent of planted area under irrigation). This is followed by Mbozi (10%), Ileje (7%), Mbeya Urban (6%), Mbeya Rural (5%), Rungwe (4%), Chunya (3%) and Kyela (1%) (Chart 3.80 and Map 3.40).

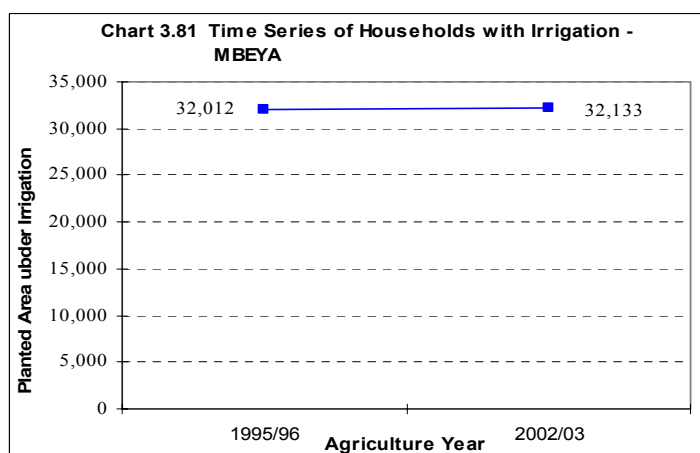


Of the total irrigated planted area of annual crops, maize and paddy were the most irrigated crops (over 90 percent of the irrigated planted area) followed by cabbage (96%), onions (96%), Amaranths (89%) and tomatoes (89%).

In terms of crop type, the area under irrigation with cereals was highest with 32,922 ha (71.2% of the total area under irrigation), followed by roots & tubers 6,045 ha (13.1%), pulses (3,739 ha, 8.1%), fruit & vegetables (1,471 ha, 3.2%) and oil seeds (202 ha, 0.4%). All of the irrigation on cereals was applied to maize and paddy.

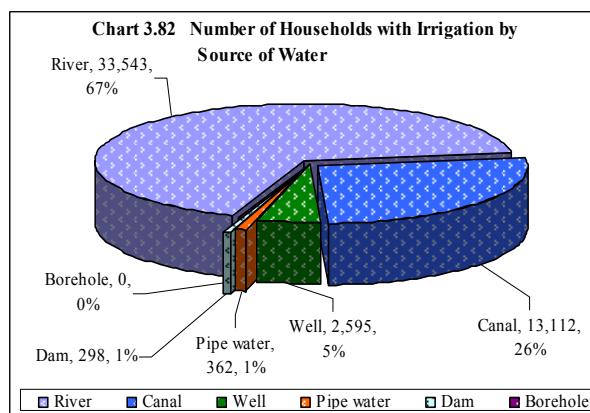
The area of fruit and vegetables under irrigation was 1,471 ha which represented 37 percent of the total planted area with fruit and vegetables. Cabbages tomatoes and amaranths were the most irrigated crops. Irrigation was not used on annual cash crops during short rainy season.

The number of agricultural households practicing irrigation in Mbeya region has not changed significantly over the 10 year period (32,012 agricultural households in 1995/96 and 32,133 agricultural households in 2002/03).



3.6.2 Sources of Water Used for Irrigation

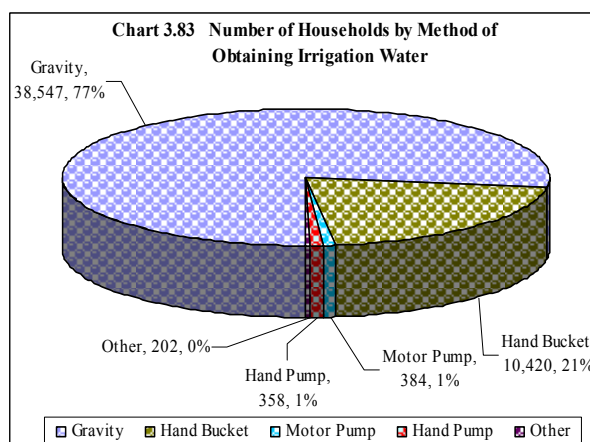
Most households obtained irrigation water from rivers (67.2% of households with irrigation). This was followed by canals (26.3%) and wells (5.2%). The proportions of households that used pipe water and dams as a source of water for irrigation were very small being 0.7% and 0.6% respectively. Rivers were the main source of irrigation water 46% of households practicing irrigation, rivers were the main source of irrigation in Mbarali Mbozi and Mbeya rural (16%)



3.6.3 Methods of Obtaining Water for Irrigation

Gravity was the most common methods of getting water for irrigation with 77 percent of households using this method. This was followed by hand bucket with 21 percent of households. The remaining methods (hand pump, motor pump and others) were of minor importance (Chart 3.83).

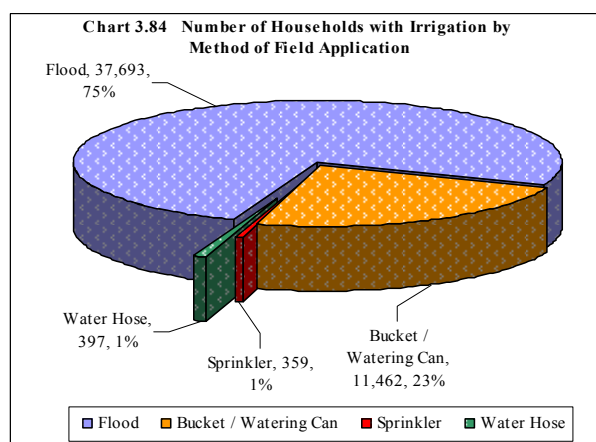
Gravity was the only method used for obtaining water for irrigation by the households from Kyela district. Hand bucket was the most common method of obtaining irrigation water by the households from Mbozi (52% of households practicing irrigation) followed by Ileje (29%), Mbarali (7%), Rungwe (4%), Chunya and Mbeya Rural (3%) each and Mbeya Urban (2%).



The hand bucket was the most common method of obtaining water in all districts except in Kyela district. Sprinklers were used in Mbeya Urban and Mbozi districts only.

3.6.4 Methods of Water Application

About 75 percent of the agricultural households that practiced irrigation used flooding for water application. This was closely followed by hand bucket/watering can (23%). Sprinklers and water hose were not widely used as they were used by 2.2% and 0.9% of the households practicing irrigation respectively) (Chart 3.84)

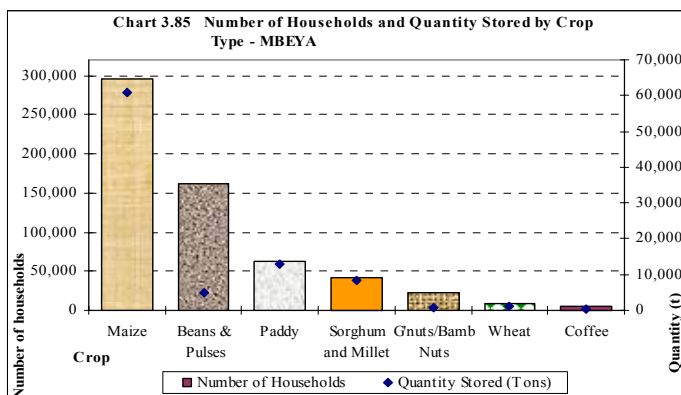


3.7 Crop Storage, Processing and Marketing

3.7.1 Crop Storage

Crop storage means keeping a crop for a certain period of time as food for the household, in order to sell at a higher price or as seed for planting in the following season.

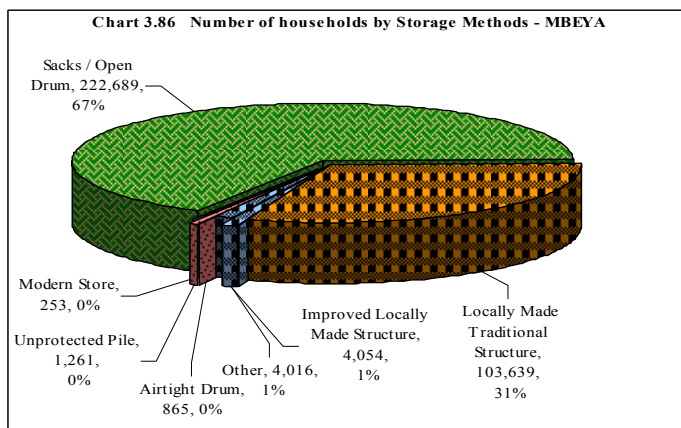
The results for Mbeya region show that there were 336,776 crop growing households (90.6% of the total crop growing households) that stored various agricultural products in the region.



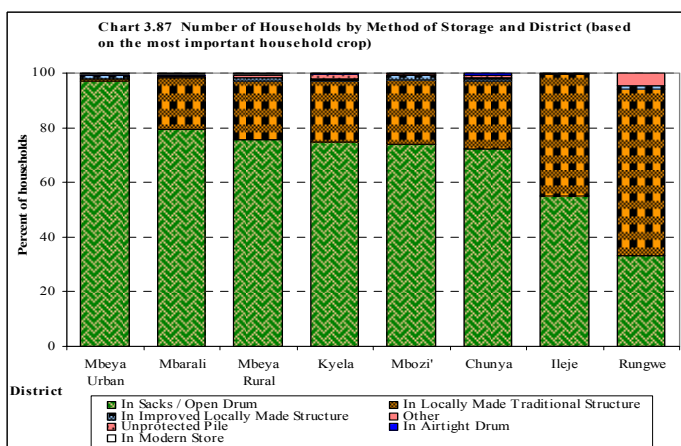
The most important stored crop was maize with 296,438 households storing 60,824 tonnes as of 1st October 2003. This was followed by beans and other pulses (161,882 households, 4,923t), paddy (63,146 households, 12,747t), sorghum and millets (41,935 households, 8,250t), groundnuts and bambaranuts (22,915 households, 909t), wheat (9,060 households, 1,147t) and coffee (4,693 households, 287t).

3.7.2 Methods of Storage

The region had 222,689 crop growing households storing their produce in sacks and/ or open drums (66% of households that stored crops in the region), followed by the number of households that stored their produce in locally made traditional structures cribs (103,639, (31%), improved locally made structures (4,054 households, 1%), unprotected piles (1,261 households, 0.4%), air tight drums (865 households, 0.3%), modern stores (253 households, 0.1%) and other methods (4,016 households, 1%).



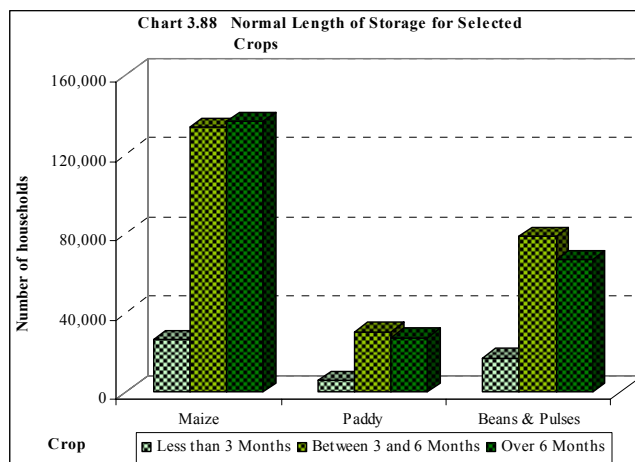
Sacks and/or open drums were the dominant storage method in all districts, with Mbeya Urban district having the highest percent of households using this method (97% of the total number of households storing crops. This was followed by Mbarali (79%), Mbeya Rural (76%), Kyela (75%), Mbozi (74%), Chunya (72%), Ileje (55%) and Rungwe (33%) (Chart 3.80).



However, the district with the highest percentage of households using locally made traditional structures in Mbeya region was Rungwe district (61% of the total number of households storing crops), followed by Ileje (44%), Chunya (25%), Mbozi (23%), Kyela (22%), Mbeya Rural (21%), Mbarali (19%) and Mbeya Urban (1%).

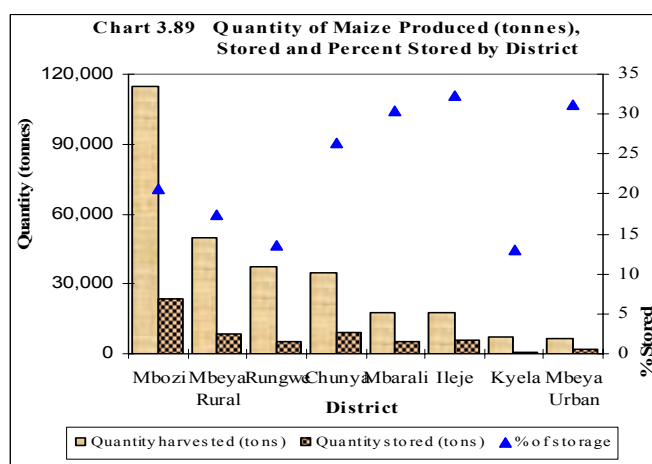
3.7.3 Duration of Storage

Most of the agricultural households (72% of the households storing crops) stored their produce for a period of 3 to 6 months followed by those who stored for a period of above 6 months (69%). The minority of households stored their crop for a period of less than 3 months (15%) (Chart 3.88).



The proportion of households that stored their produce for the duration of 3 to 6 months was highest in Mbeya Urban district (57%) followed by Rungwe (56%), Mbeya Rural (55%), Mbarali (54%), Kyela (51%), Ileje (50%), chunya (34%) and Mbozi (33%) (Map 3.41).

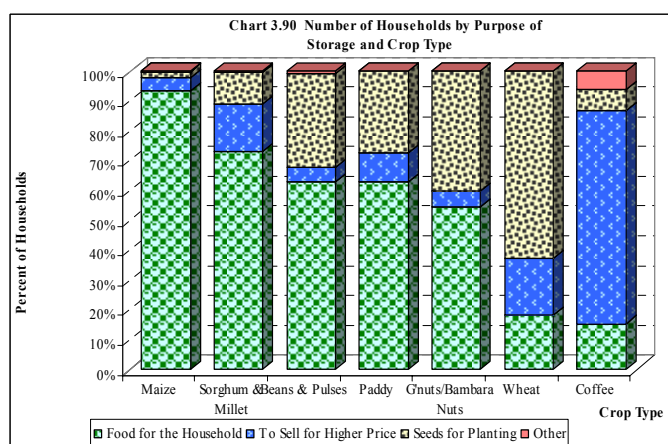
District comparison of duration of storage cannot be done for all crops combined. However, the analysis has been done for maize only as it is the most commonly stored crop. In general, quantity stored was related to the quantity produced. Districts with greater production had a higher percent of their crop stored as on 1st October 2003 (Chart 3.89).



However, the agricultural households in Kyela district stored relatively little maize in comparison to the quantity produced indicating that the quantity stored was determined by the food and seed requirement of the household and not to sell during the “off-season” when the farm gate price of maize is higher.

3.7.4 Purposes of Storage

Subsistence food crops (maize, paddy, sorghum and millet, beans and pulses) are mainly stored for household consumption. The percent of households that stored maize for household consumption as the main purpose of storage was 93.4 percent followed by selling for high prices. Practically all stored annual cash crops were stored for selling at higher price. (Chart 3.90).



3.7.5 The Magnitude of Storage Loss

About 85.5 percent of households that stored crops had little or no loss, however the proportion of households that experienced a loss of more than a quarter was higher for food crops than crops that are produced for sale such as coffee, tobacco, cashew nut, groundnut and bambara nuts.

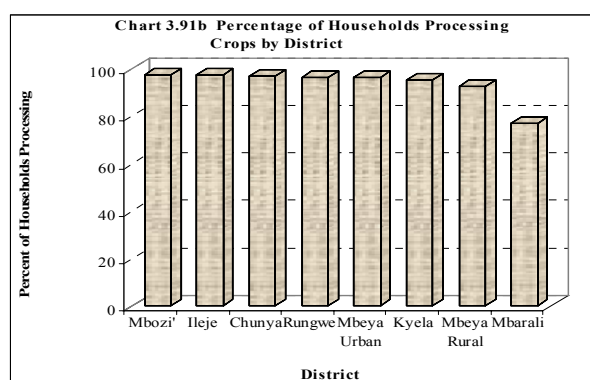
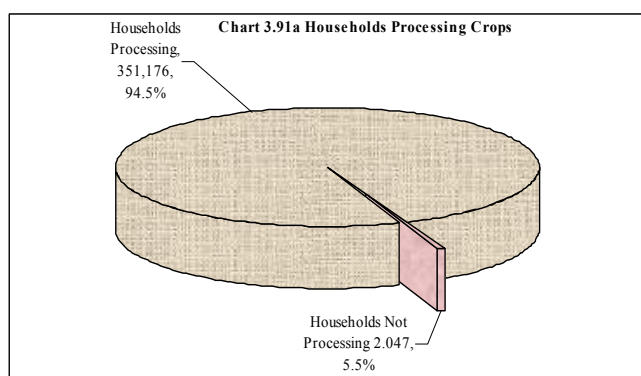
The proportion of households that reported a loss of more than a quarter was highest for sorghum and millet (9.3% of the total number of households that stored those crops). This was followed by maize (9.1%), groundnuts and bambaranut (5.4%), beans and pulses (2.9%) and paddy (1.1%). Most households storing groundnuts and bambara nuts had little or no storage loss (94%) (Table 3.10).

9.2 CROP STORAGE: Number of Households Storing Crops By Estimated Storage Loss and District

District	Estimate Storage Loss				Total
	Little or no Loss	Up to 1/4 Loss	Between 1/4 and 1/2 Loss	Over 1/2 Loss	
Chunya	22,544	7,374	1,081	496	31,495
Mbeya Rural	37,076	8,006	953	237	46,272
Kyela	23,659	5,759	1,934	266	31,618
Rungwe	46,077	12,877	3,776	391	63,120
Ileje	17,666	6,555	765	65	25,051
Mbozi'	90,612	5,704	3,511	708	100,535
Mbarali	29,201	1,917	327	216	31,662
Mbeya Urban	6,011	730	223	59	7,022
Total	272,846	48,921	12,571	2,438	336,776

3.8 Agro processing and By-products

Agro processing refers to a process that converts a crop product from one form to another form in order to add value or

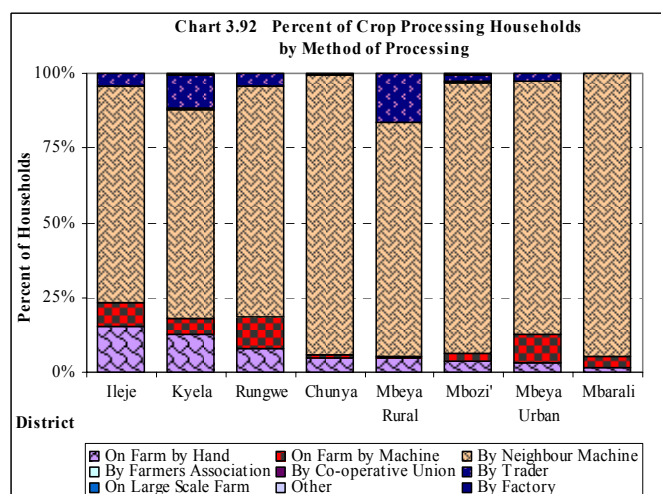


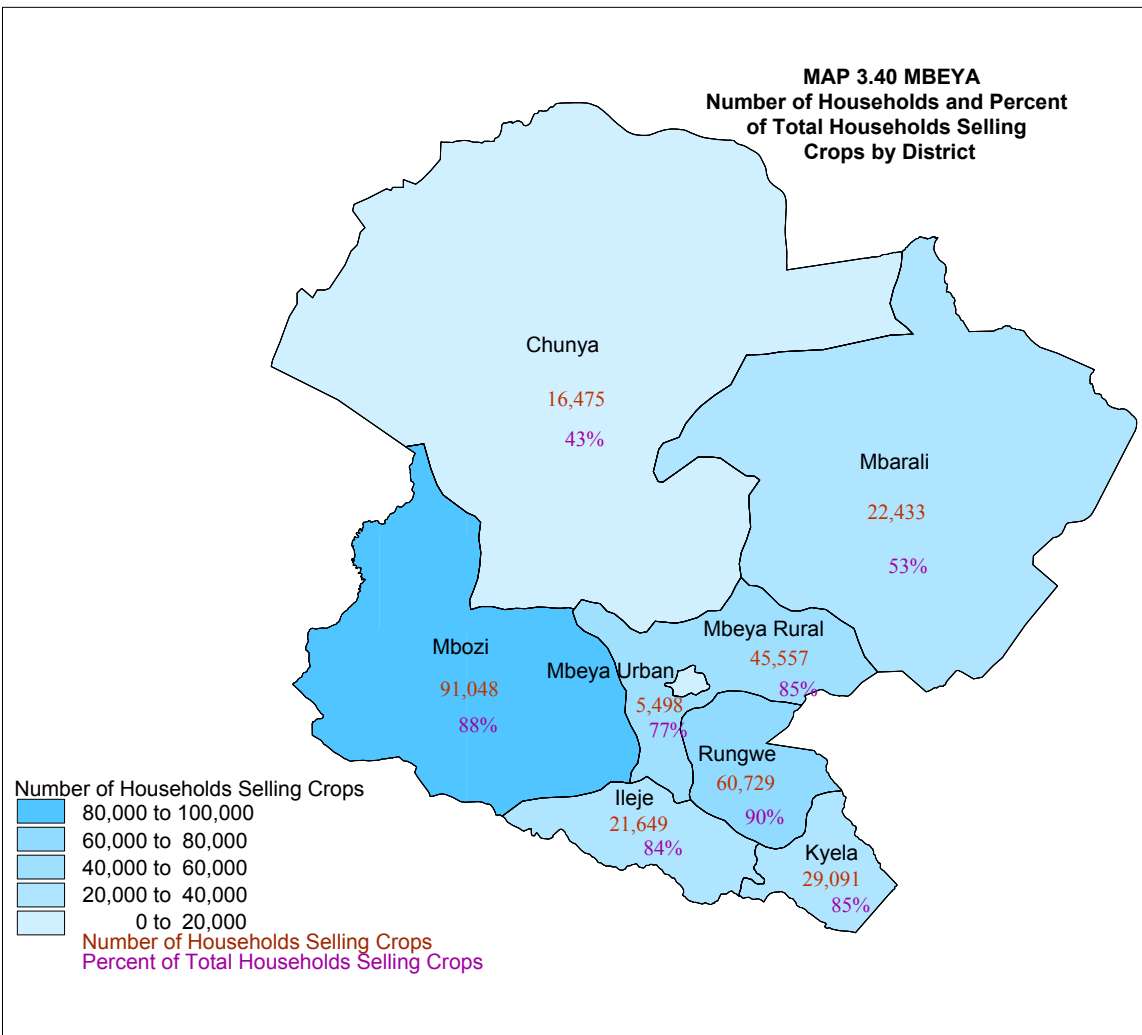
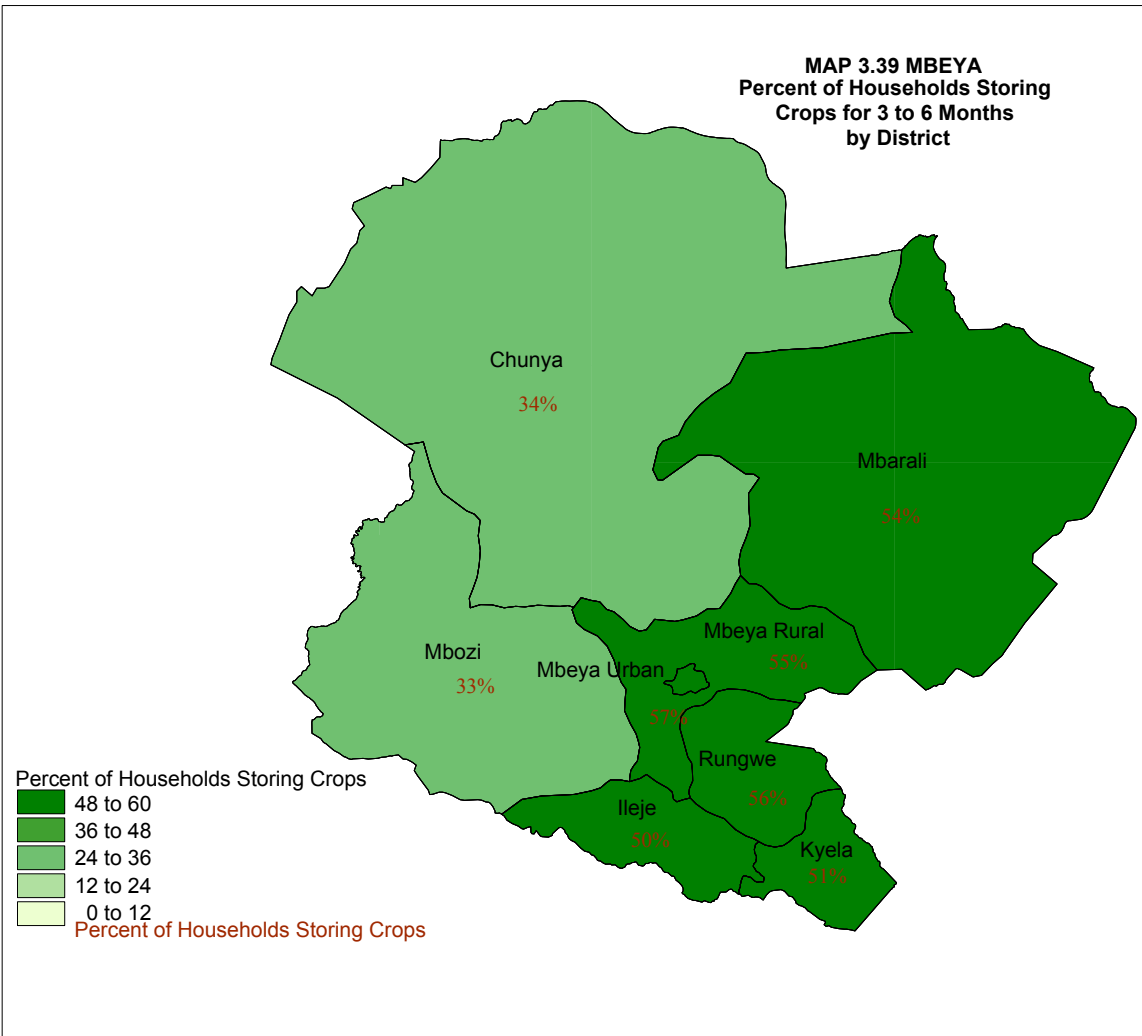
increase the palatability of the product. Agro-processing was practiced in most crop growing households in Mbeya region (351,176 households, 99.5% of the total crop growing households) (Chart 3.91a).

The percent of households processing crops was very high in most districts (above 80%). Mbarali district had the lowest percent of households processing crops (77% of crop growing households) (Chart 3.91b).

3.8.1 Processing Methods

Most crop processing agricultural households processed their crops using neighbour's machines representing 84 percent (294,395 households). This was followed by those processing on-farm by hand (22,173 households, 6%), traders (17,573 households, 5%) and on-farm by machine (15,428 households, 4%). The remaining methods of processing were used by very few households (less than 1%).





Although processing by neighbours' machine was the most common processing method in all districts in Mbeya region, district differences existed. Ileje has a highest percentage of hand processing of households processing crops (15.3%), followed by Kyela (13%), (Rungwe (8%), Chunya and Mbeya districts (5%) each, Mbozi (4%), Mbeya Urban (3%) and Mbarali. However, processing on farm by machine was more prevalent in Rungwe, Mbeya Urban and Ileje (Chart 3.92)

3.8.2 Main Agro-processing Products

Two types of products can be produced from agro-processing namely, main product and by-product. The main product is the major product after processing and the by-product is the secondary product after processing. For example the main product after processing maize is normally flour whilst the by-product is normally bran.

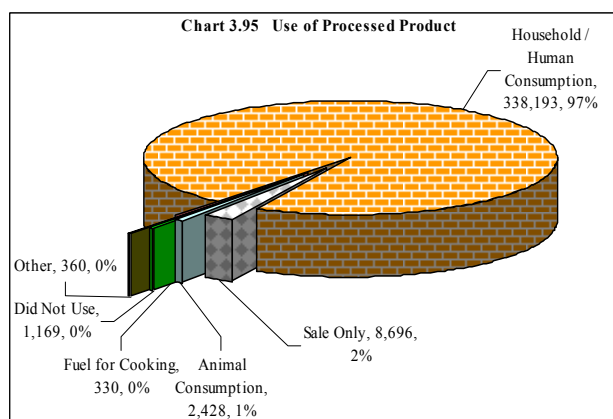
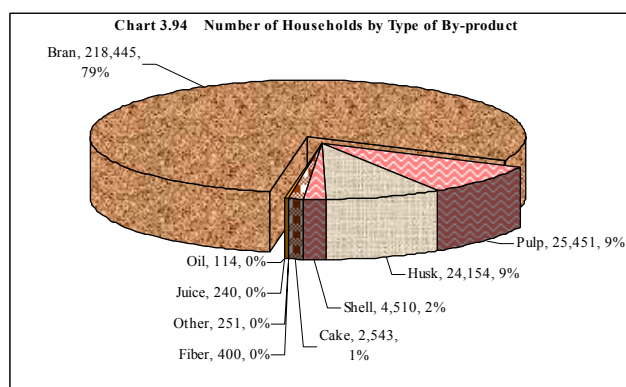
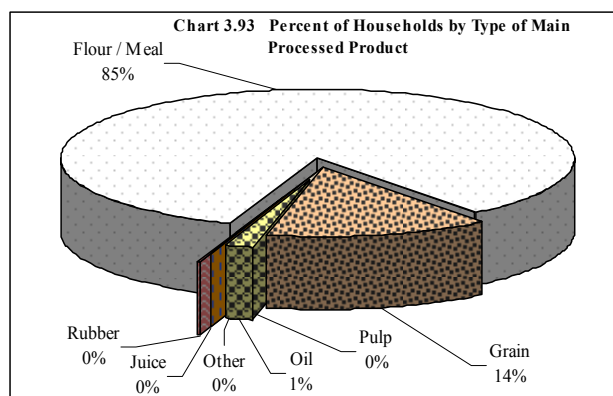
The main processed product was flour/meal produced by 294,138 agricultural households (84% of households processing crops) followed by grain (50,522 households, 14%). The remaining products were produced by a small number of households (Chart 3.93).

The number of households producing by-products accounted for 69.1 percent of the households processing crops. The most common by-product produced by crop processing households was bran with 218,445 households (79%) followed by pulp (25,451 households, 9.2%), husks (24,154 households, 8.7%), shell (4,510 households, 2%) and cake (2,543 households, 1%). The remaining by-products were produced by a small number of households (Chart 3.94).

3.8.3 Main Use of Primary Processed Products

Primary processed products were used for households/human consumption, as fuel for cooking, for selling and for animal consumption. The most important use was for household/human consumption which accounted for 97 percent of the total households that used primary processed crops (Chart 3.95). Chunya, Mbeya Rural and Rungwe were the only districts that used primary products as fuel for cooking.

Out of 8,696 agricultural households that sold processed products, 7,242 were from Chunya (24% of the total number of households selling processed products in the region) followed by Kyela (7,118 households (23%), Rungwe (6,811 households, 22%), Ileje (3,043 households, 10%), Mbozi (2,728 households, 9%), Mbarali (1,503 households, 5%), Mbeya Rural (1,198 households, 3.9%) and Mbeya Urban had (1,135 households, 3.7%) (Chart 3.96).



3.8.4 Outlets for Sale of Processed Products

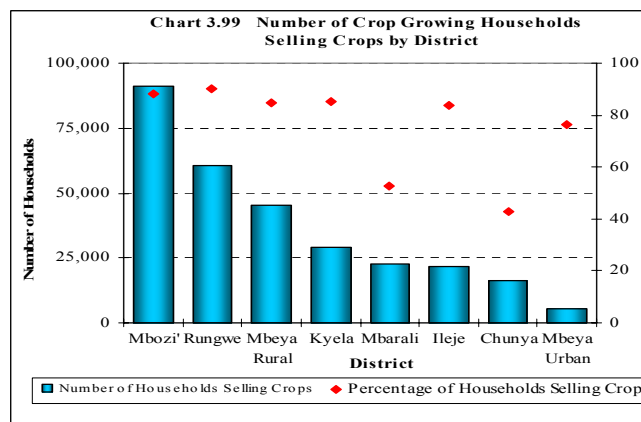
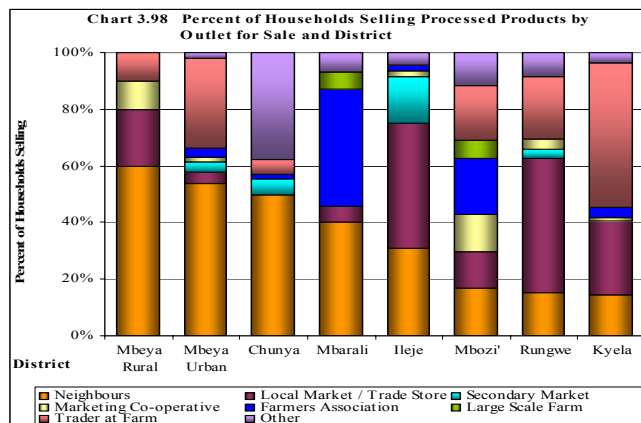
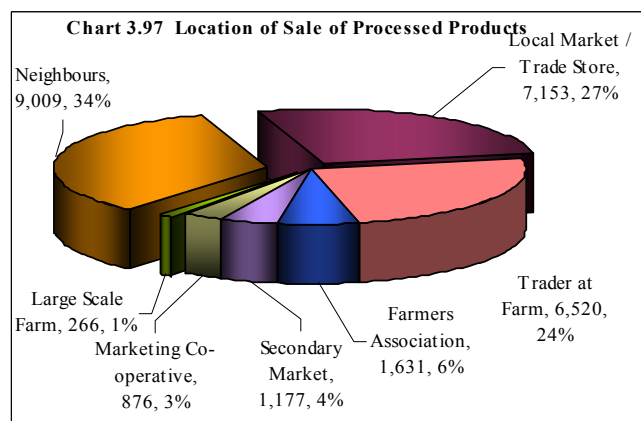
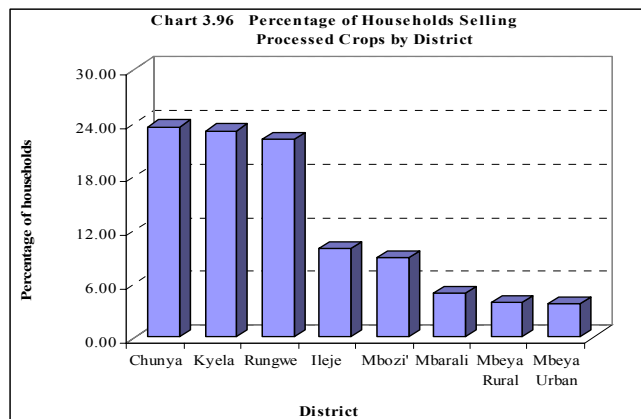
Most households that sold processed products sold to neighbours (9,009 households, 29% of households that sold crops). This was followed by selling to local market and/or trade stores (7,153 households, 27%), trader at farm (6,520 households, 24%), farmer’s associations (1,631 households, 6%), secondary market (1,177 households, 4%) and large scale farms (266 households, 1%) (Chart 3.97).

There were large differences between districts in the proportion of households selling processed products to neighbours with Mbeya Rural district having the largest percentage (60%), whereas Kyela district had only 14 percent. Rungwe district had a higher percent of households selling to local markets/trade stores.

Compared to other districts, Kyela district had the highest percentage of households selling processed products to traders at farm. In Mbarali district, the sale of processed products to farmer associations was the most prominent compared to other districts. The districts that had the highest proportion of households selling processed products to marketing cooperative were Mbozi and Mbeya Rural.

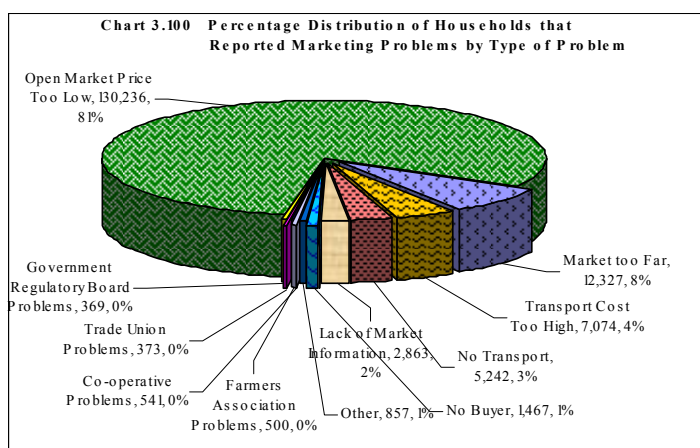
3.9 Crop Marketing

The number of households that reported selling crops was 292,480 which represented 80.3 percent of the total number of crop growing households. The percentage of crop growing households selling crops was highest in Mbozi (90%) followed by Rungwe (88%), Mbeya Rural and Kyela districts had (85%) each, Ileje (84%), Mbeya Urban (77%) Mbarali (53%) and Chunya (43%) (Chart 3.99 and Map 3.42).



3.12.1 Main Marketing Problems

Low price for agricultural produce was the main marketing problem reported by households (81% of crop growing households). Apart from low market prices, other problems were longer distances to the markets (high transport costs (4%), lack of transport (3%), lack of market information (2%), no buyers (1%). Other marketing problems are minor and represented less than 1 percent of the total reported problems.



3.12.2 Reasons for Not Selling Crops

The main reason for not selling crops was reported as “insufficient production to sell”, representing 85 percent of the smallholders. The remaining reasons for not selling are in such low numbers that it is not appropriate to rank their importance (Table 3.11). This general trend applies to all districts in the region.

Main Reason	Number of households	%
Production Insufficient to Sell	95,536	84.8
Price Too Low	9,434	8.4
Other	4,361	3.9
Farmers Association Problems	913	0.8
Market Too Far	789	0.7
Co-operative Problems	745	0.7
Trade Union Problems	601	0.5
Government Regulatory Board Problems	225	0.2
Total	112,603	100.0

3.13 Access to Crop Production Services

3.13.1 Access to Agricultural Credit

The census result shows that in Mbeya region very few agricultural households (21,141 households, 6% of agricultural households) accessed credit). Out of which (16,887 households, 80%) were male-headed households and (4,254 households, 20%) were female.

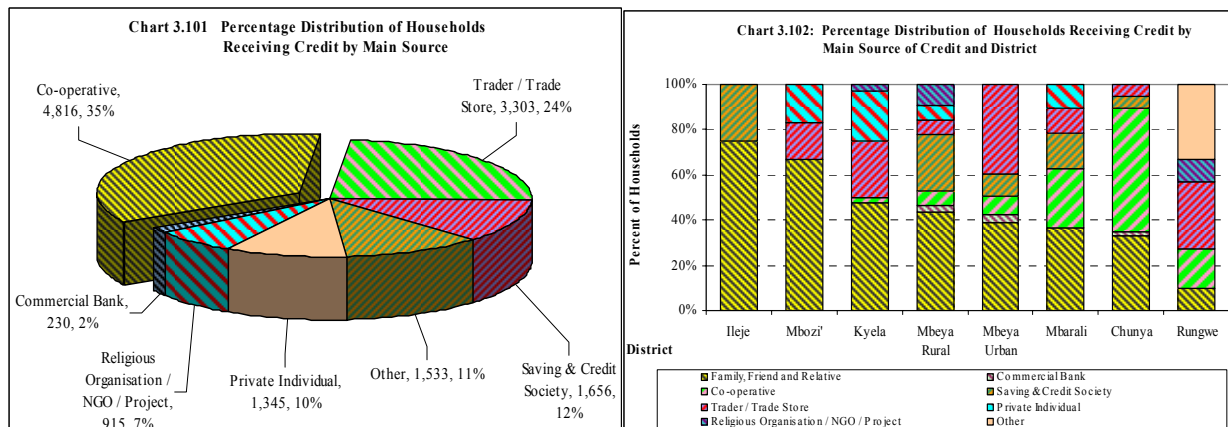
In Mbozi district only male headed households got agricultural credit whereas Ileje district had the highest percentage of female headed households (75%) that got agricultural credits. (Table 3.13).

Table 3.13 Number of Agricultural Households that Received Credit by Sex of Household Head and District

District	Male		Female		Total
	Number	%	Number	%	
Chunya	5,221	92	466	8	5,687
Mbeya Rural	2,152	56	1,666	44	3,818
Kyela	2,709	83	537	17	3,246
Rungwe	3,732	80	924	20	4,657
Ileje	64	25	192	75	256
Mbozi'	1,072	100	0	0	1,072
Mbarali	1,565	79	407	21	1,971
Mbeya Urban	371	86	62	14	433
Total	16,887	80	4,254	20	21,141

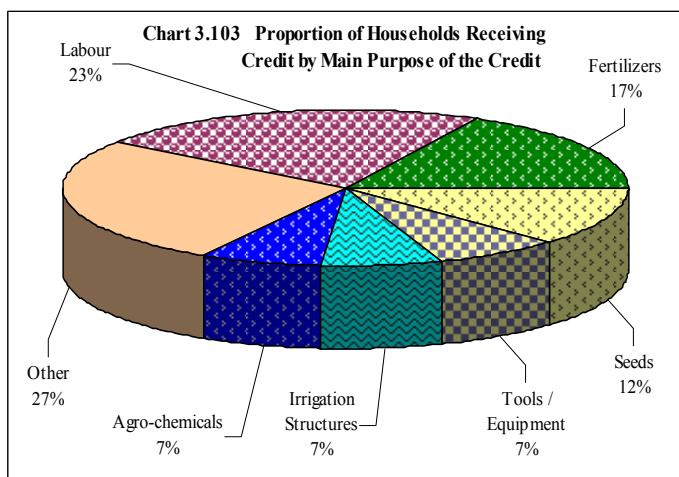
3.13.2 Source of Agricultural Credit

The major agricultural credit providers in Mbeya region were co-operatives (35%), Trader / Trade Store (24%), saving and credit societies (12%), other sources (11%), private individuals (10%), religious organization/NGO's/project (7%), Commercial banks (2%) (Chart 3.101). Provided credits in Chunya, Mbeya Rural and Mbeya Urban districts. Traders/trader stores provided credits in all districts except in Ileje district. (Chart 3.102).



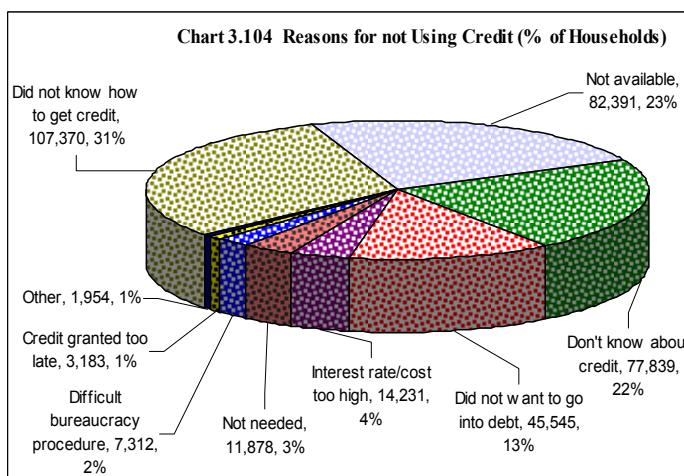
3.13.3 Use of Agricultural Credit

A large proportion of the agricultural credit provided to agricultural households in the region was for buying fertilisers (30%), followed by agro-chemicals and labour had (18%) each, seeds (15%), tools and equipments (11%), livestock (2%) and other purposes (5%). The proportion of agricultural credits used for irrigation purposes was small (1%) (Chart 3.103).



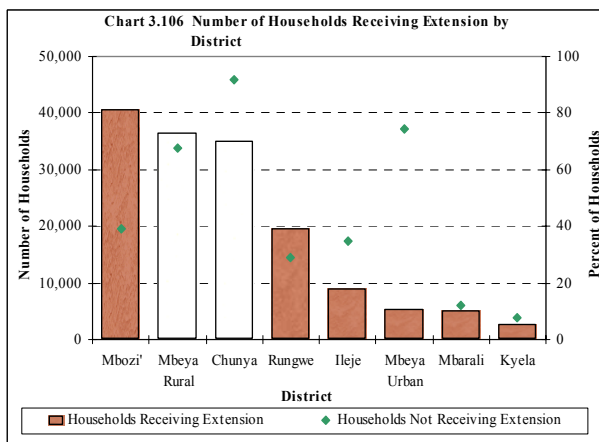
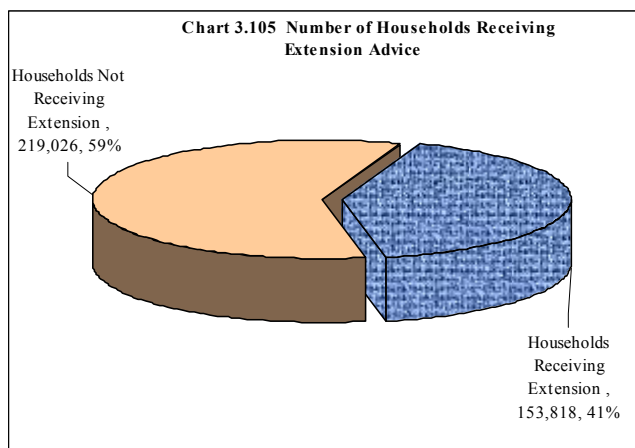
3.13.4 Reasons for Not Using Agricultural Credit

The main reason for not using agricultural credit as a source of finance was said to be little credit awareness accounting for 53 percent of the agricultural household (“Did not know how to get credit” and “don’t know about credit”). This was followed by households reporting un-availability of credit (23%), followed by “not wanting to go into debt” (13%), interest rate/cost too high (4%) and the percentage of households that did not want borrow were (3%). The rest of the reasons collectively accounted for (4%) of the households not accessing credit.



3.14 Crop Extension

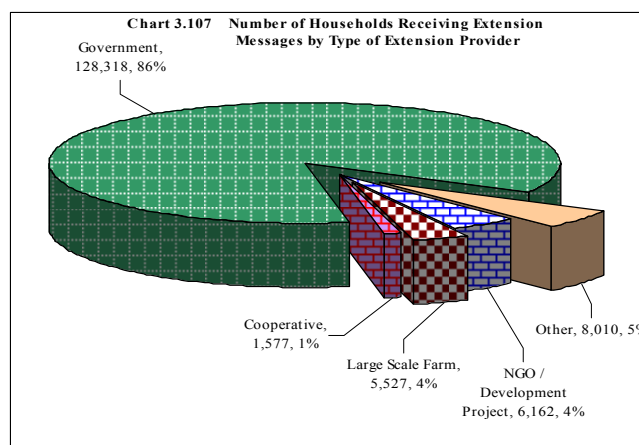
The number of Agricultural households that received crop extension was 153,818 (41% of total crop growing households in the region) (Chart 3.105). Some districts had more access to extension services than others, with Chunya having a relatively high proportion of households (92%) that received crop extension messages in the district followed by Mbeya



3.106 and Map Urban (75%), Mbeya Rural (68%), Mbozi (39%), Ileje (35%), Rungwe (29%), Mbarali (12%) and Kyela (8%) (Chart 4.43).

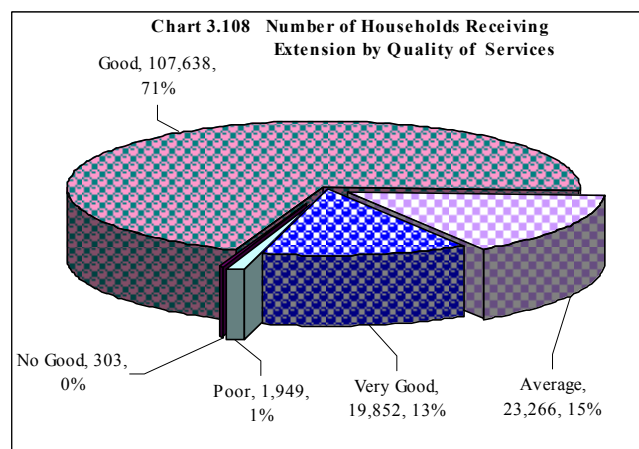
3.14.1 Sources of Crop Extension Messages

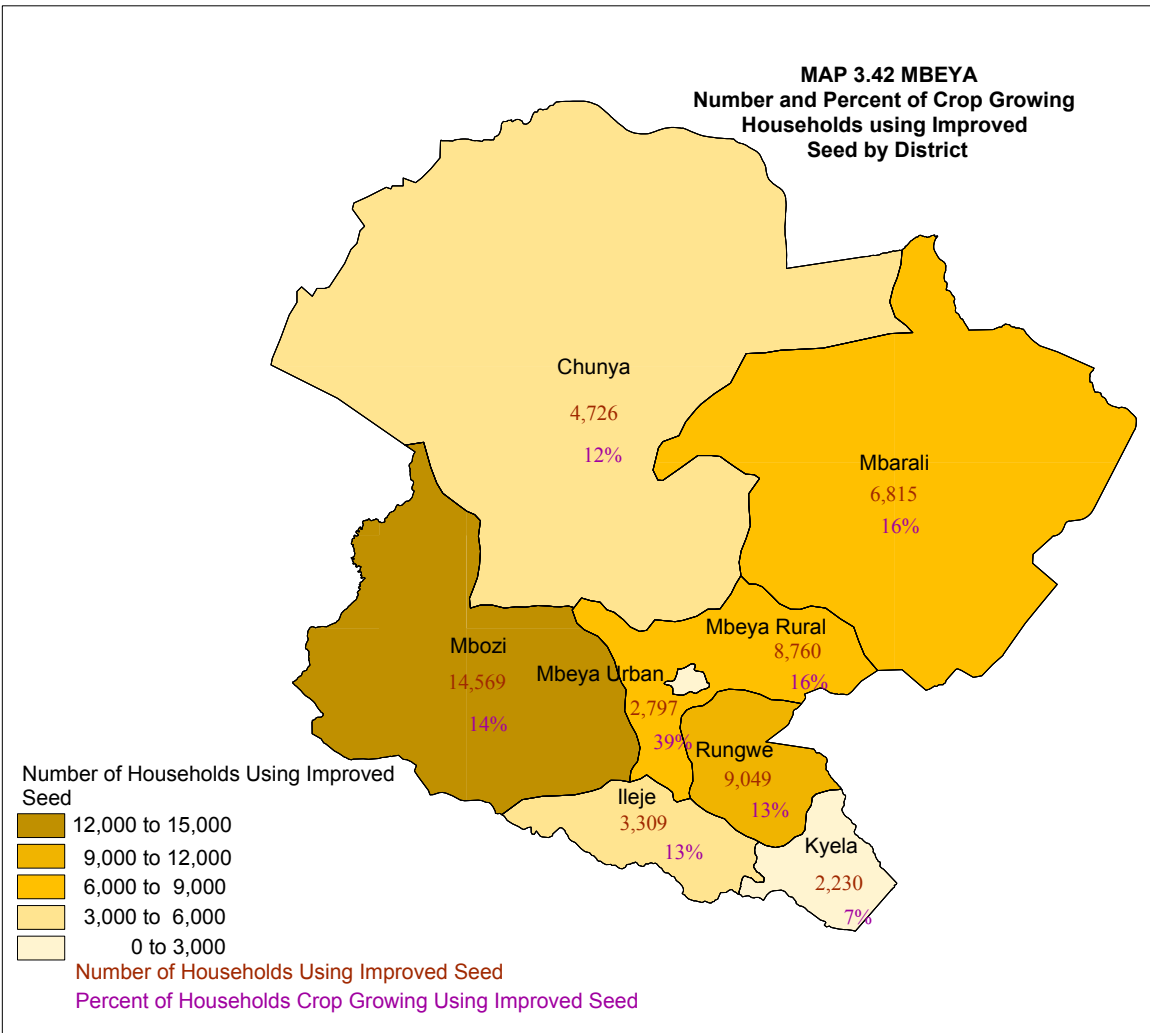
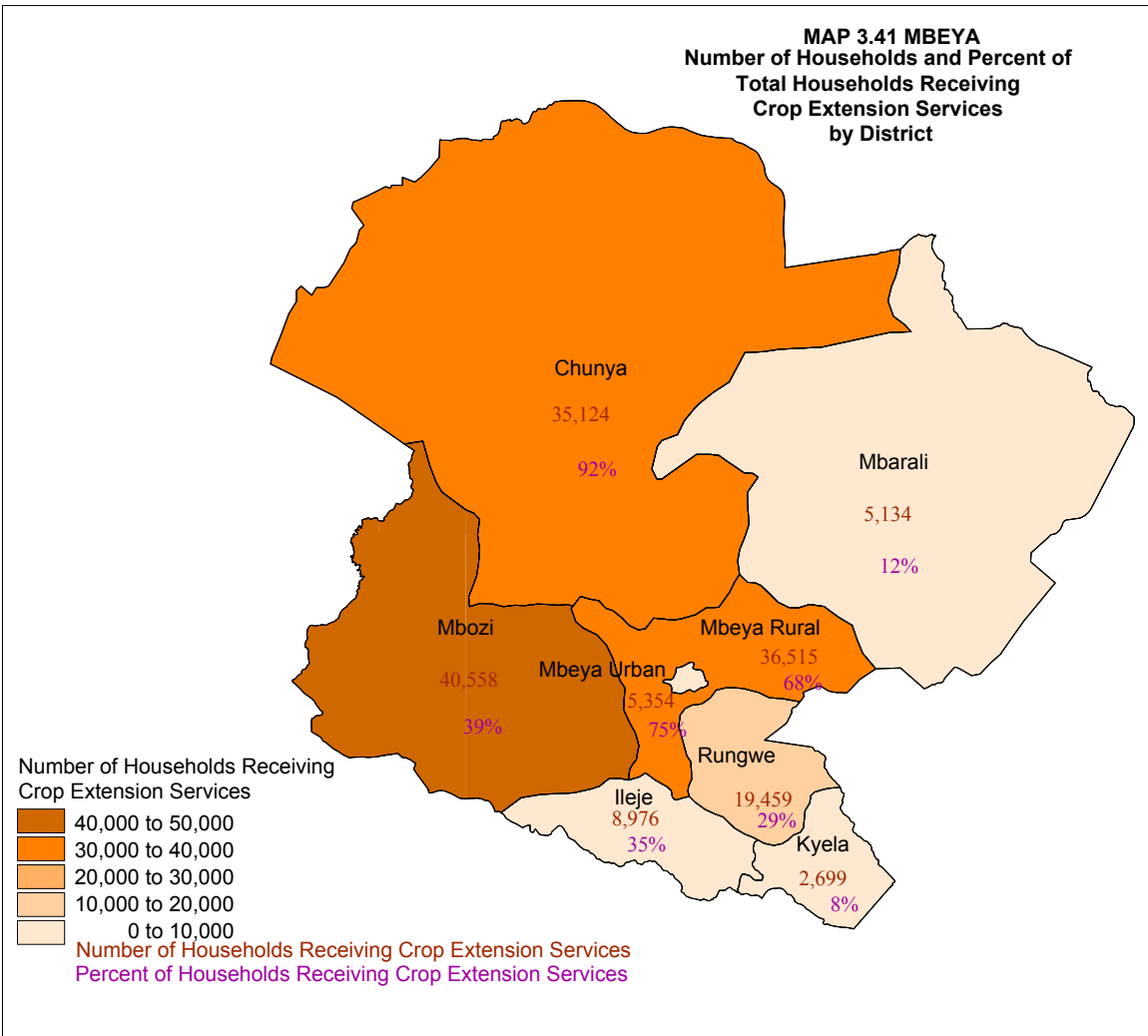
Most of the households received extension advice from the Government (128,318 households, 86%). Other providers were (8,010 households, 5%), NGOs provided (6,162 households, 4%), large scale farms (5,527 households, 4%), co-operatives (1,577 households, 1%) and others (Chart 3.107). At district level there were differences in the proportion of the households receiving advice from the government ranging from between (73%) in Mbozi and (98%) in Chunya.



3.14.2 Quality of Extension

On the quality of extension services, 71 percent of the agricultural households receiving extension ranked it as good, followed by average (15%), very good (13%), poor (1%) and no good (0%) (Chart 3.108). However, care should be exercised when making decisions on quality of extension and also other variables on extension as all the enumerators were extension agents and some degree of bias is expected.





3.15 Access to Inputs

Access to inputs in this section refers to all crop growing households in the region regardless of whether the households grew annual or permanent crops. In previous sections the reference was on annual crops only. Because of this, some of the figures presented in this section may be slightly different from those in Section 3.5. Data on source of inputs is only found in this section and it applies to both annual and permanent crops.

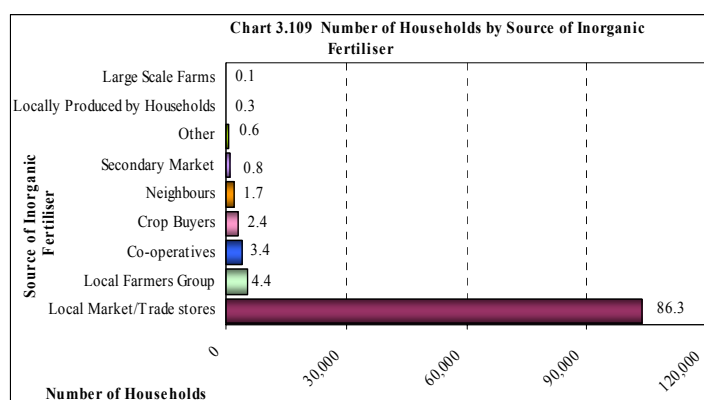
Table 2.14 Access to Inputs

Type of Input	Households With Access to Input		Households Without Access to Inputs	
	Number	%	Number	%
Farm Yard Manure	107,580	29	264,070	71
Improved Seeds	52,255	14	319,395	86
Insecticides/Fungicides	63,646	17	308,004	83
Compost	56,324	15	319,308	85
Inorganic Fertilizers	120,352	32	251,298	68
Herbicides	27,006	7	344,644	93

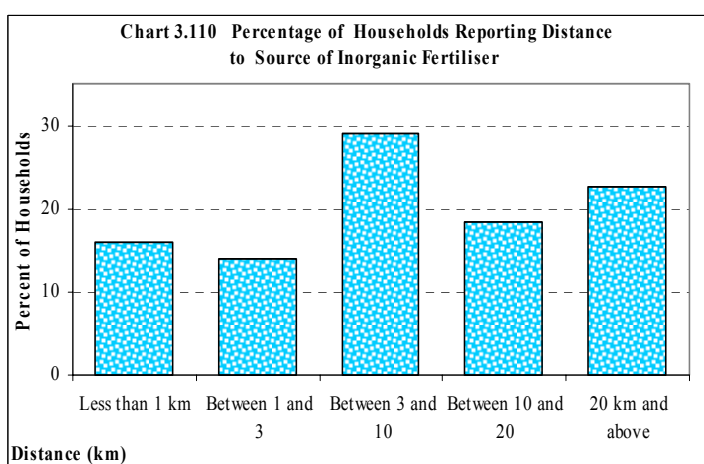
A small number of households used inputs and this is particularly true of inputs that are not produced on farm i.e., improved seeds, inorganic fertilizers, fungicides and herbicides. In Mbeya region inorganic fertilizers were used by 120,352 households which represented 32 percent of the total number of crop growing households. This was followed by households that used farm yard manure (29%), insecticides/fungicides (17%), compost manure (15%), improved seeds (14%) and herbicides (7%) (Table 2.13).

3.15.1 Inorganic Fertilisers

Smallholders who used inorganic fertilisers in Mbeya mostly purchased them from the local market/trade stores (86.3% of the total number of inorganic fertiliser users) followed by agricultural households that purchased fertilizers from co-operatives (3.4%), crop buyers (2.4%) and neighbours (1.7%). The remaining sources of inorganic fertilisers were of minor importance (Chart 3.109).



The source of inorganic fertilisers was mainly less or equal to 10 km from the households with most households residing between 3 and 10 km from the source (29%), followed by those households residing 20 (km) and above (23%), households residing between 10 km and 20 km (18%), less than 1 km (16%), and between 1 and 3 km (14%), (Chart 3.110). Due to the very small number of households using inorganic fertilisers coupled with the small number of households responding to “not available” (12%) as the reason for not using the fertilizers, it may be assumed that access to inorganic fertiliser is not the main reason for not using them. Other reasons such as cost were

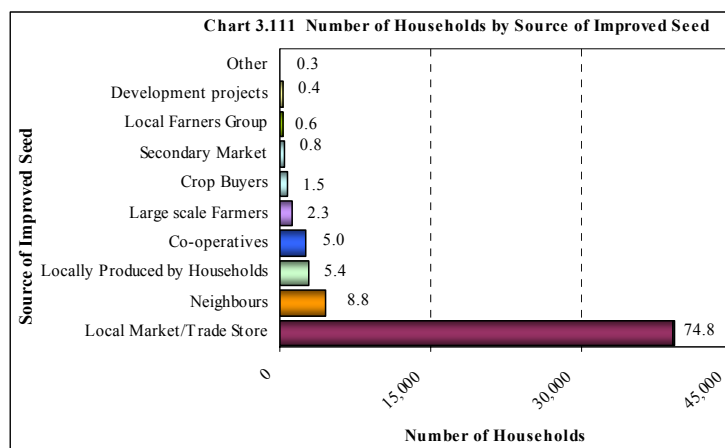


more important with 70 percent of households responding to cost factors as the main reason for not using. In other words, it may be assumed that if the cost was affordable the demand would be higher and inorganic fertilisers would be made more available.

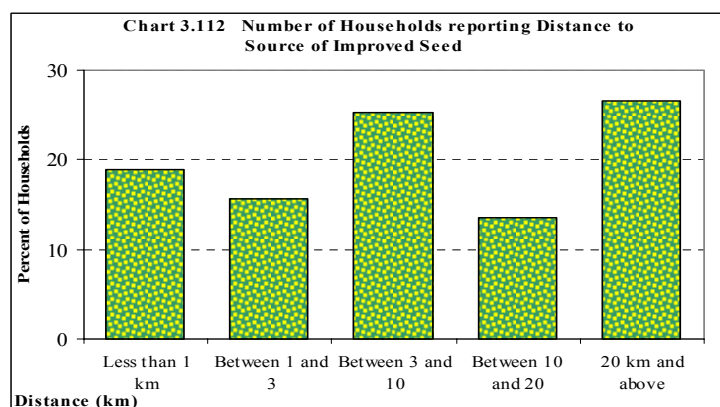
The percentage of smallholders using inorganic fertilisers was highest in Mbeya Urban than in other districts in Mbeya region (52% of households using inorganic fertilisers), followed by Mbozi (27%), Meya Rural (24%), Ileje (17%) and Chunya (14%). Other three districts of Mbeya Urban, Kyela and Rungwe used very little inorganic fertilisers.

3.15.2 Improved Seeds

The percentage of crop growing households that used improved seeds was 14.1 percent. of the total number of crop growing households. Most households obtained improved seeds from the local market/trade stores (74.8%). Other less important sources were neighbours (8.8%), locally produced by households (5.4%), co-operatives (5.0%), large scale farms (2.3%), crop buyers (1.5%), secondary markets (0.8%), local farmers' groups (0.6%), development projects (0.4%) and other sources (0.3%) (Chart 3.111).



Access to improved seeds was slightly better than access to chemical inputs with 19 percent of households obtaining the input within 1 km of the household (Chart 3.112).



The district which used improved seeds most was Mbeya Urban (39% percent of the total number of households using improved seeds in Mbeya region), followed by Mbeya Rural and Mbarali had (16%) each, Mbozi (14%), Rungwe and Ileje had (13%) each, Chunya (12%) and Kyela (7%) (Map 3.44).

3.15.3 Insecticides and Fungicide

Most smallholders using insecticides and fungicides purchased them from local markets/trade stores (87% of the total number of fungicide users). Other sources of insecticides/fungicides were of minor importance (Chart 3.113).

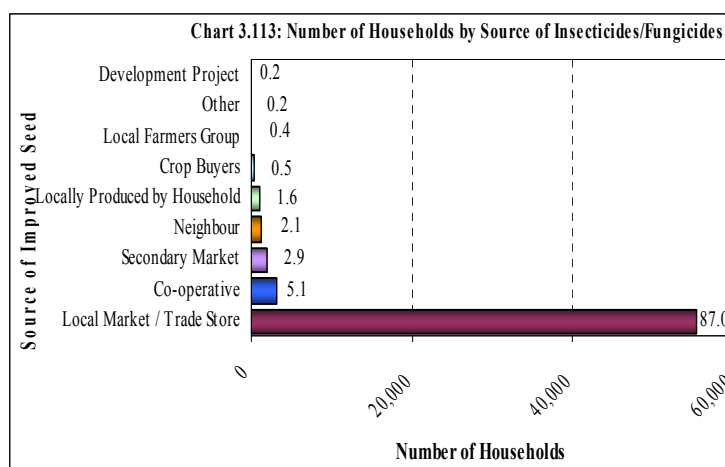


Chart 3.114 shows that there was no distinct pattern in access to Insecticides and fungicides. From the small number of households using insecticides/fungicides coupled with only 7 percent of households responding to “not available” as the reason for not using them, it may be assumed that access was not the main reason for not using them.

Other reasons such as cost are more important with 74 percent of households responding to cost factors as the main reason for not using. In other words, it may be assumed that if the cost was affordable, the demand would be higher and access to insecticides/fungicides would be made more available. Most insecticides/fungicides users were in Mbeya Urban district (44 percent of the total number of households that use fungicide in the region), followed by Mbeya Rural (30%) and Chunya (11%). Insecticides/fungicides used in other five districts was of minor importance.

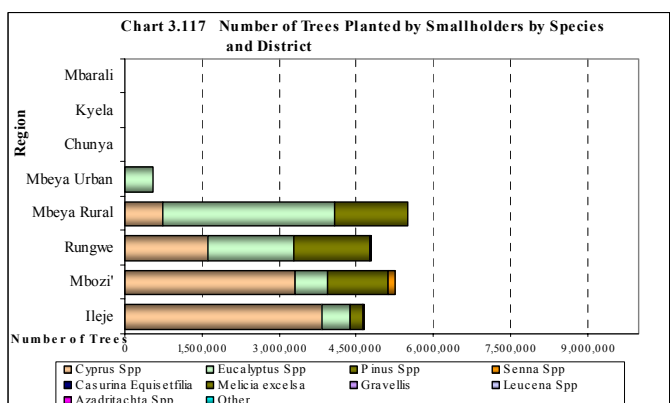
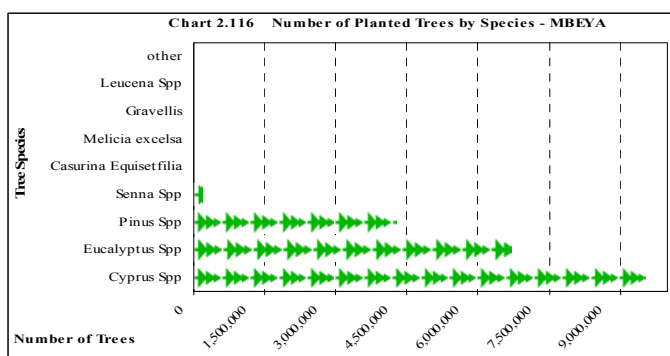
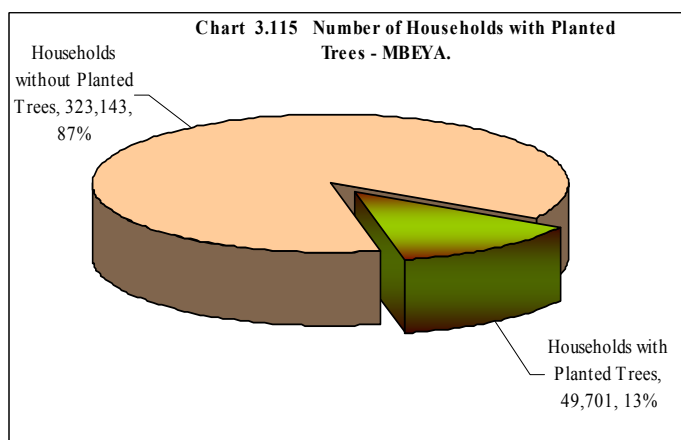
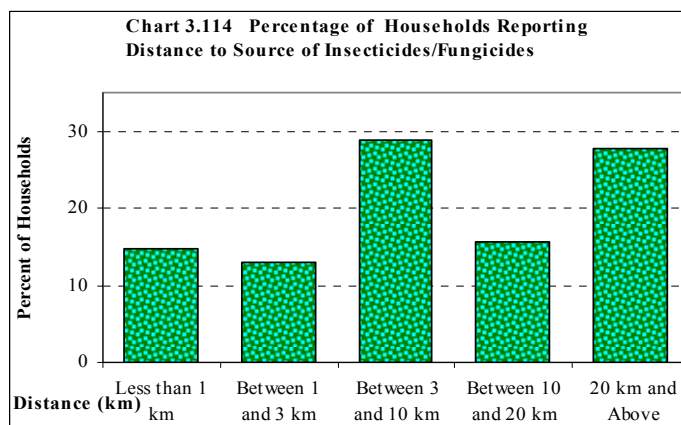
3.10 Tree Planting

The number of households involved in tree farming was 49,701 representing all households in the region (Chart 3.115).

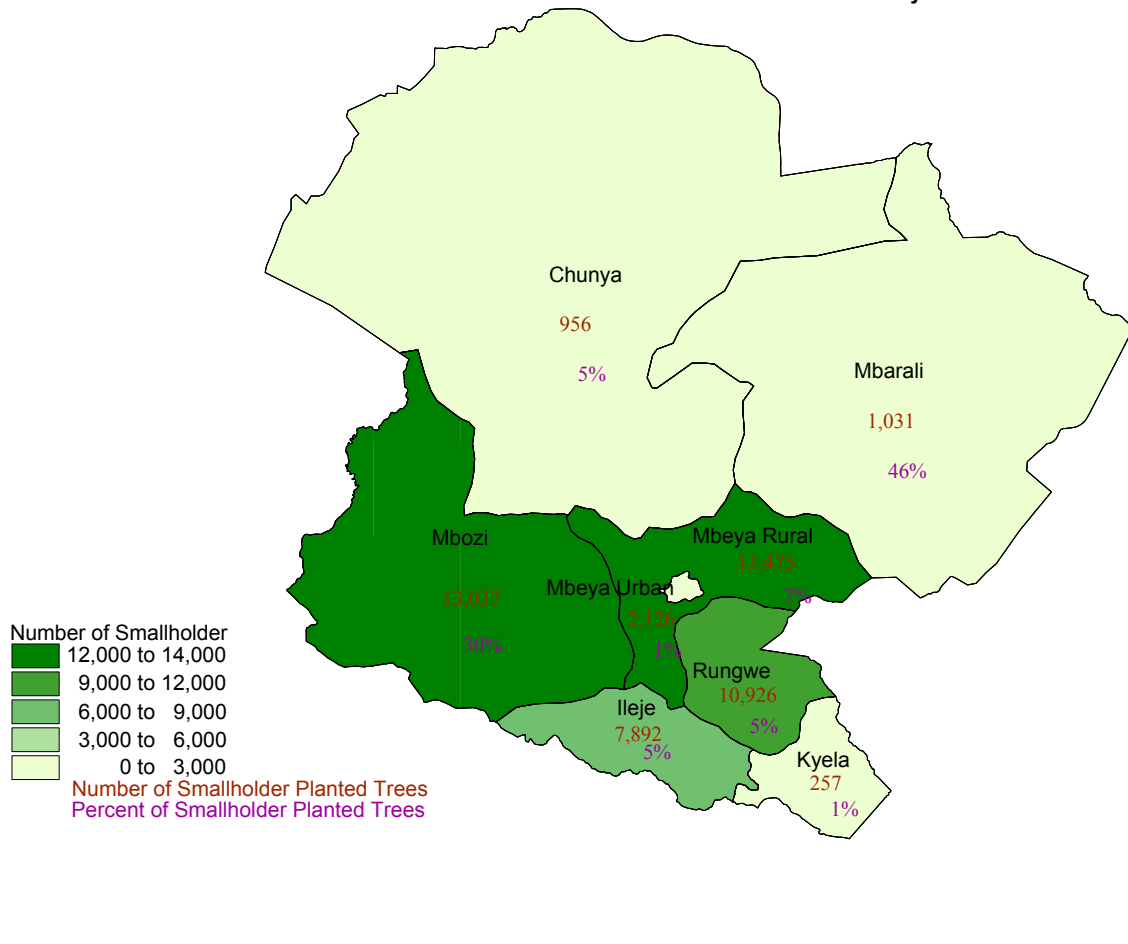
The number of trees planted by smallholders on their allotted land was 20,797,861 trees. The average number of trees planted per household planting trees was 56 trees.

The main specie planted by smallholders was Cyprus spp (9,539,359 trees, 46%), followed by eucalyptus spp (6,714,472 33%), pinus spp (4,287,540, 21%) and senna spp (173,547 trees, 1%). Other types of trees were planted in comparatively small numbers (Chart 116. and Map 3.45)

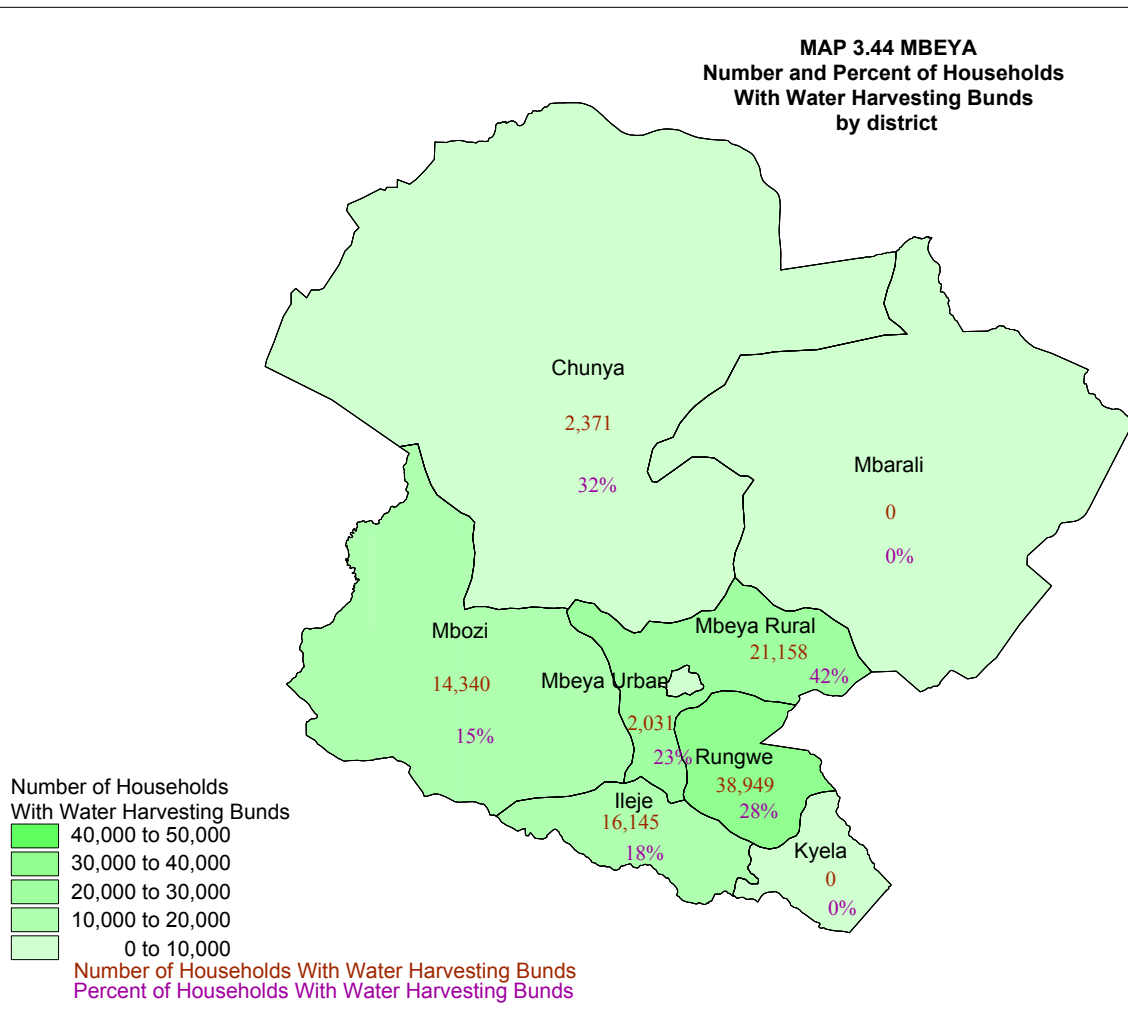
Ileje district had the largest number of smallholders with planted trees than any other district (31%) and dominated by cyprus species. This was followed by Mbeya Urban (30%) which were dominated by euclyptus spp. Mbeya Rural (25%), Rungwe (16%), and Mbozi (13%) which is mainly planted with cyprus spp (Chart 3.117 and Map 3.45).



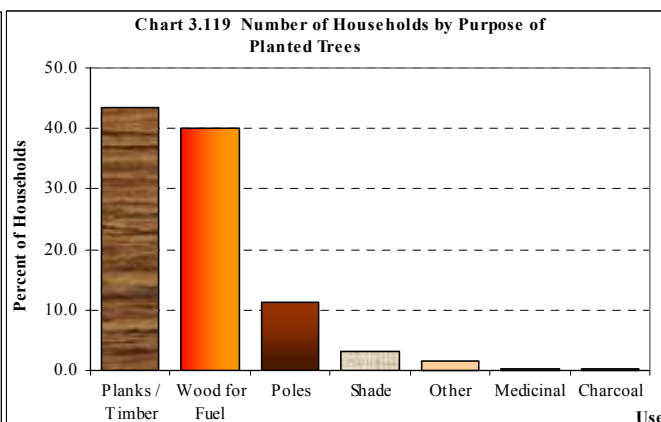
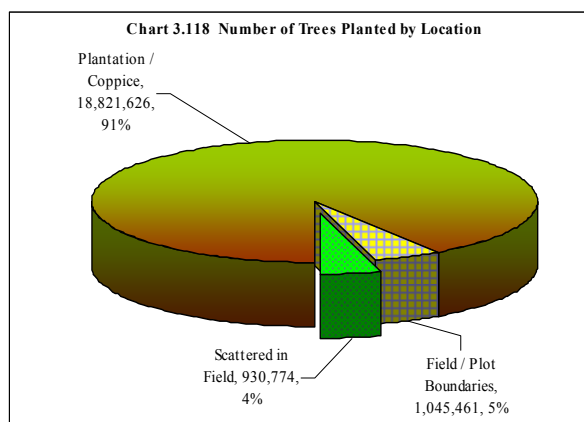
MAP 3.43 MBEYA
Number and Percent of Smallholder
Planted Trees by District



MAP 3.44 MBEYA
Number and Percent of Households
With Water Harvesting Bunds
by district



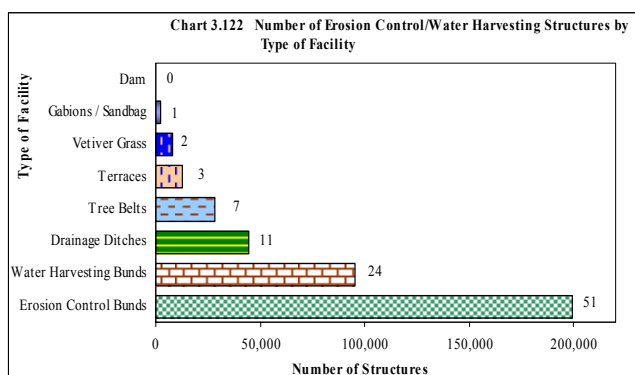
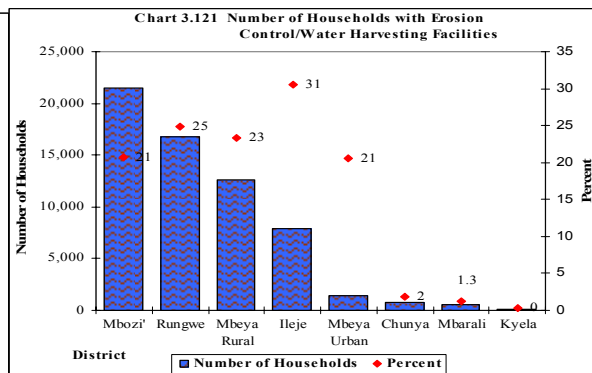
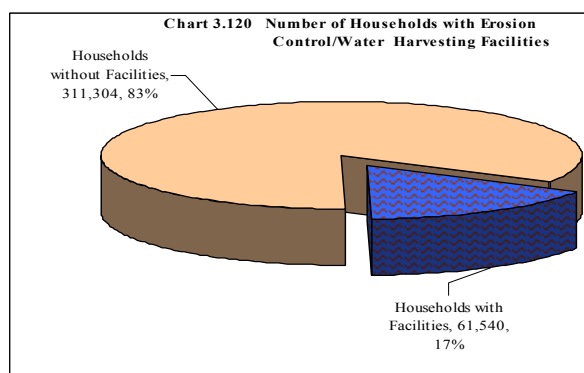
Most plant trees were planted in plantations or coppices. The proportion of trees that were planted in plantations or coppices was 90 percent, followed by trees in field/plot boundaries (5%) and trees scattered in the fields (5%) (Chart 3.118). The main purpose of planting trees was to obtain planks/timber (43%). This was followed by wood for fuel (40%), poles (11%), shade (3%), medicinal, charcoal had (0.2%) each and other purposes (2%) (Chart 3.119).



3.10.1 Irrigation and Erosion Control Facilities.

Erosion control and water harvesting facilities are grouped together as they normally have dual purposes of reducing erosion and increasing the amount of water available for crop production. The number of agricultural households that had soil erosion and water harvesting facilities on their farms was 61,540 representing 17 percent of the total number of agricultural households in the region (Chart 3.120).

The proportion of households with soil erosion control and water harvesting facilities was highest in Ileje district (31% of the agricultural households in the district), followed by Rungwe (25%), Mbeya Rural (23%), Mbozi and Mbeya Urban districts had (21%) each, Mbarali (13%), Chunya (2%) and Kyela (0.2%) (Chart 3.121).



Erosion control bunds accounted for 51 percent of the total number of structures, followed by water harvesting bunds (24%), drainage ditches (11%), tree belts (7%), terraces (3%), vetiver grass (2%), gabions/sandbags (1%) dams (0.03%) (Chart 3.122 and Map 3.46).

Erosion control by erosion control bunds, water harvesting bunds and drainage ditches together had 338,528 structures. This represented 86 percent of the

total structures in the region. The remaining 14 percentages was shared among the rest of the erosion control methods mentioned above. Rungwe, Mbozi and Ileje districts had 322,221 erosion control structures (83 percent of the total erosion structures in the region).

3.12 LIVESTOCK RESULTS

3.12.1 Cattle Production

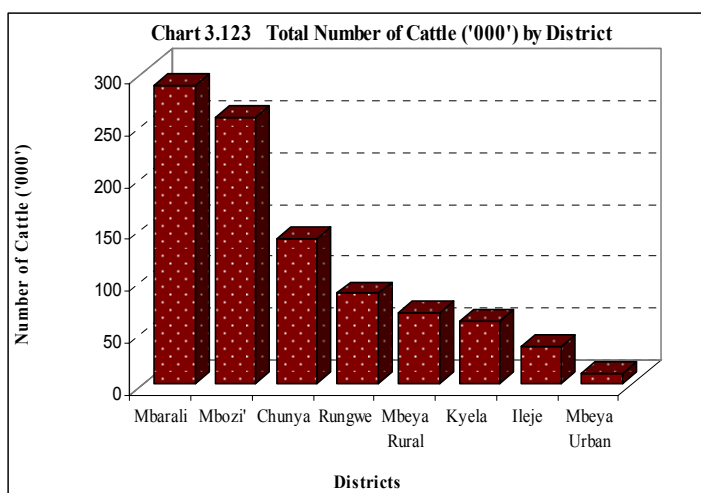
The total number of cattle in the region was 941,077. Cattle were the dominant livestock type in the region followed by goats, sheep and pigs. The region had 5.6 percent of the total cattle population on Tanzania Mainland.

3.12.2 Cattle Population

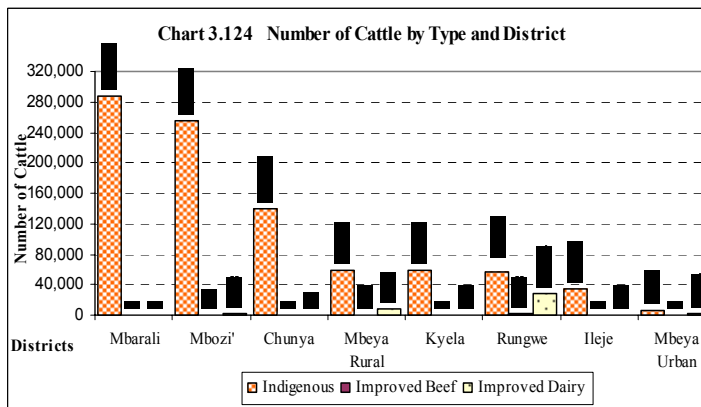
The number of indigenous cattle in Mbeya region was 898,050 (95.4 % of the total number of cattle in the region). There were 40,982 (4.4%) dairy breeds and 2,045 (0.2%) beef breeds.

The census results show that 119,098 agricultural households in the region (31.9% of total agricultural households) kept 0.9 million cattle. This was equivalent to an average of 8 heads of cattle per cattle-keeping-household.

The district with the largest number of cattle was Mbarali which had about 287,381 cattle (31% of the total cattle in the region). This was followed by Mbozi (256,867 cattle, 27%), Chunya (139,491 cattle, 15%), Rungwe (86,639 cattle, 9%), Mbeya Rural (67,205 cattle, 7%), Kyela (59,095, 6%) and Ileje (35,384 cattle, 4%). Mbeya Urban district had the least number of cattle (9,016 cattle, 1%) (Chart 3.123 and Map 3.47). However, Mbeya Urban district had the highest density (92 head per km²) (Map 3.48).



Although Mbarali district had the largest number of cattle in the region, most of it was indigenous. This is the same for other districts except for Rungwe district which had the largest number of dairy cattle in the region (23,024, 26% of the cattle in the district). In general, the number of beef cattle in the region was moderate (Chart 3.124).



3.12.3 Herd Size

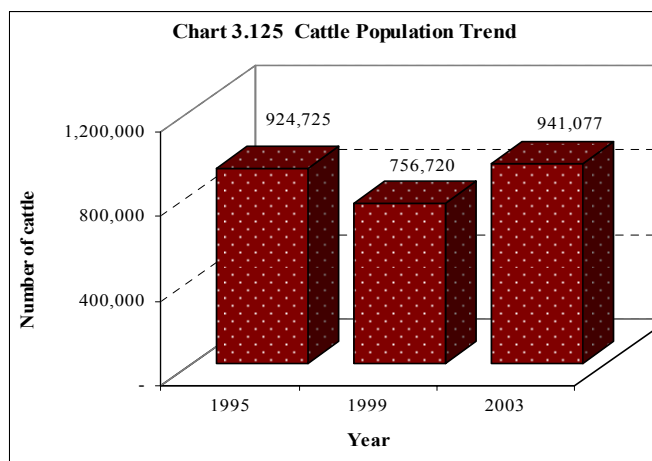
Seventy two percent of the cattle-rearing households had herds of size 1-5 cattle with an average of 2 cattle per household. Herd sizes of 6-30 accounted for about 26 percent of all cattle in the region. Only 1 percent of the cattle rearing households had herd sizes of 31- 100 cattle. About 98 percent of total cattle rearing households had herds of size 1-30 cattle and owned 54 percent of total cattle in the region, resulting in an average of 4 cattle per cattle rearing household. There were about

979 households with a herd size of more than 151 cattle each (269,967 cattle in total) resulting in an average of 276 cattle per household.

3.12.4 Cattle Population Trend

Little change in the cattle population has occurred in Mbeya region eight years: from 924,725 in 1995 to 941,077 cattle in 2003, representing an overall annual positive growth rate of only 0.22 percent (Chart 3.125).

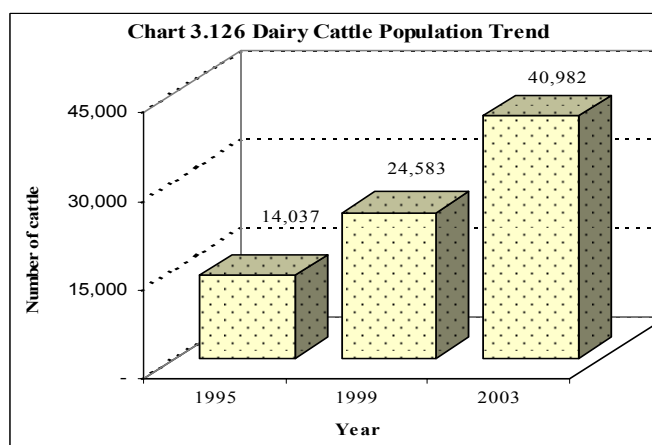
However, there was a very sharp decrease in number of cattle from 924,725 in 1995 to 756,720 in 1999. The cattle population recovered between 1999 and 2003 at a rate of 5.6 percent.



3.12.5 Improved Cattle Breeds

The total number of improved cattle in Mbeya region was 43,027 (40,982 improved dairy and 2,045 improved beef).

The dairy cattle constituted 4.4 percent of the total cattle and 95.2 percent of improved cattle in the region. The number of beef cattle in the region was insignificant constituting only 4.8 percent of the total number of the improved cattle and 0.2 percent of the total cattle. The number of improved dairy increased from 14,037 in 1995 to 40,982 in 2003 at an annual growth rate of 14.3 percent. The growth rate was higher over the period 1995 to 1999 (15.0%) than from 1999 to 2003 (13.6%) (Chart 126).



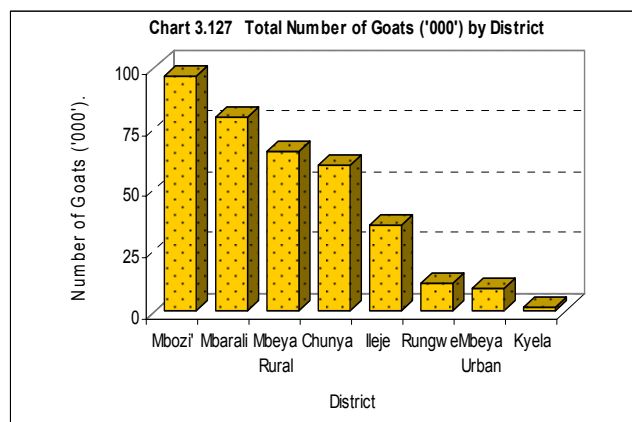
3.12.6 Goat Production

Goat rearing was the second most important livestock keeping activity in the region followed by sheep and pig rearing. In terms of total number of goats, Mbeya region ranked 13 out of the 21 regions in Tanzania Mainland with 3.1 percent of the total goats on the Mainland.

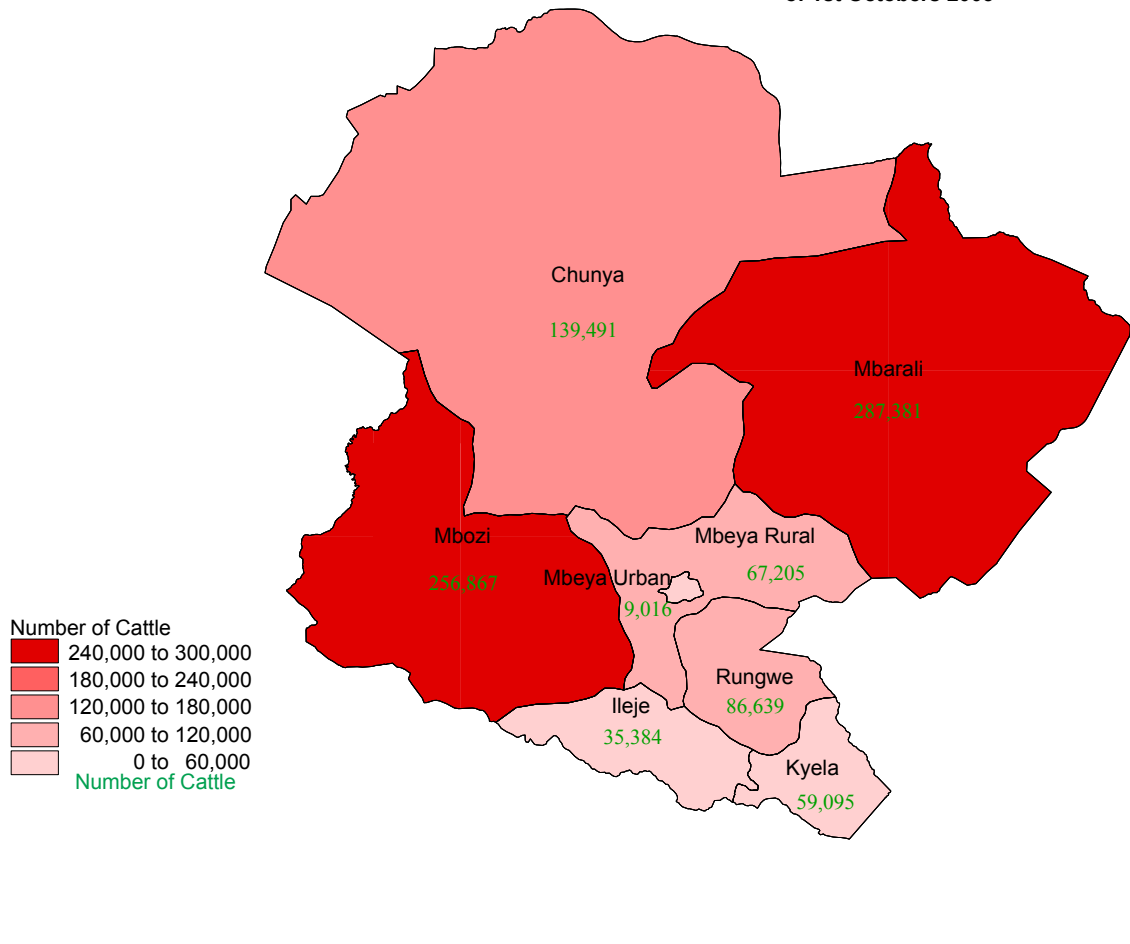
3.12.7 Goat Population

The number of goat-rearing-households in Mbeya region on 1st October 2003 was 59,999 (16% of all agricultural households in the region) with a total of 358,789 goats giving an average of 6 head of goats per goat-rearing-household.

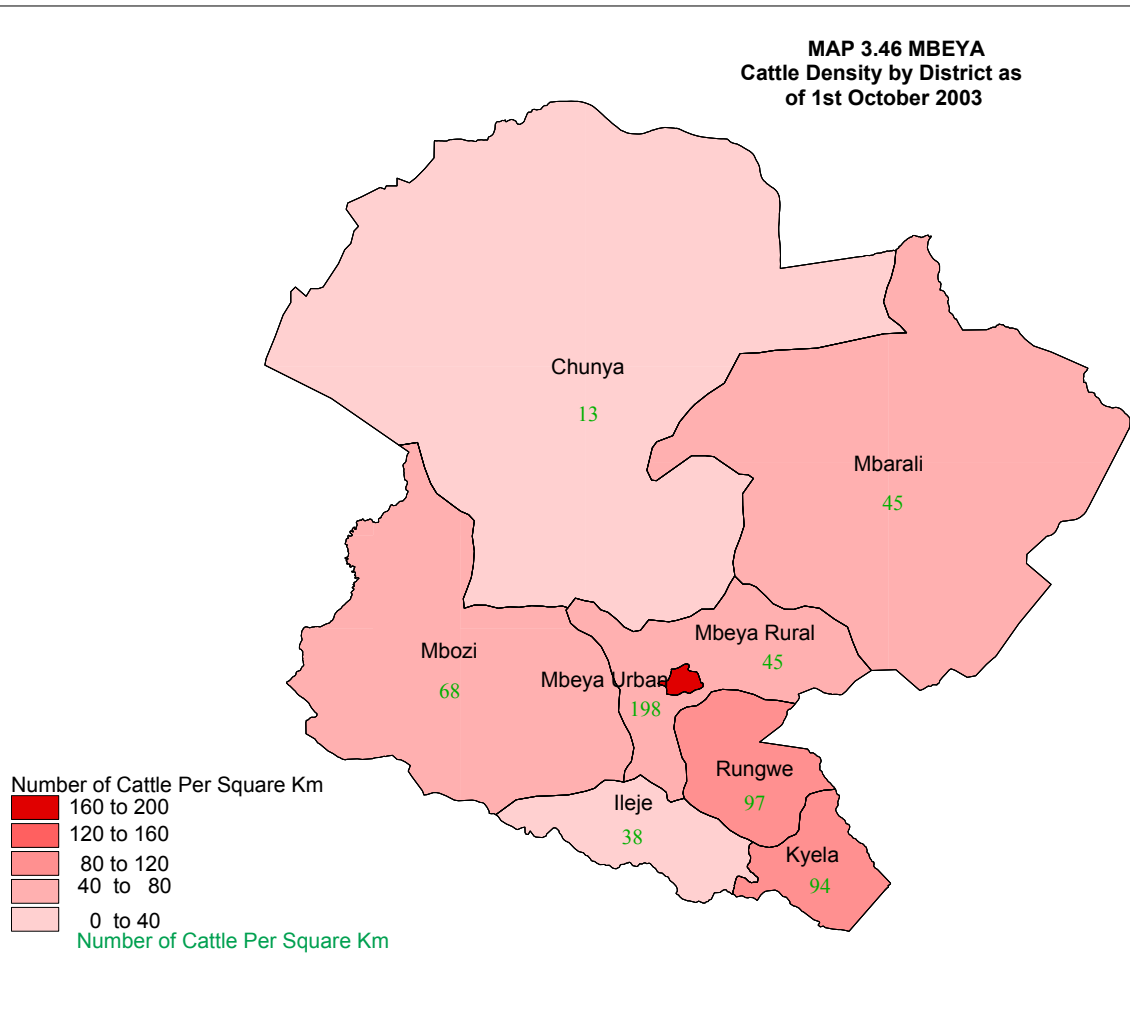
Mbozi had the largest number of goats 96,202 goats, 27% of all goats in the region), followed by Mbarali (79,762 goats, 22%), MbeyaRural (65,476 goats, 18%), Chunya (60,104 goats, 17%), Ileje (35,450 goats, 10%), Rungwe (11,168 goats, 3%), Mbeya Urban (9,327 goats, 2.6% and Kyela (1,299 goats, 0.4% (Chart 3.127 and Map 3.49). However Mbeya Urban district had the highest density (240 head per km²) (Map 3.50).

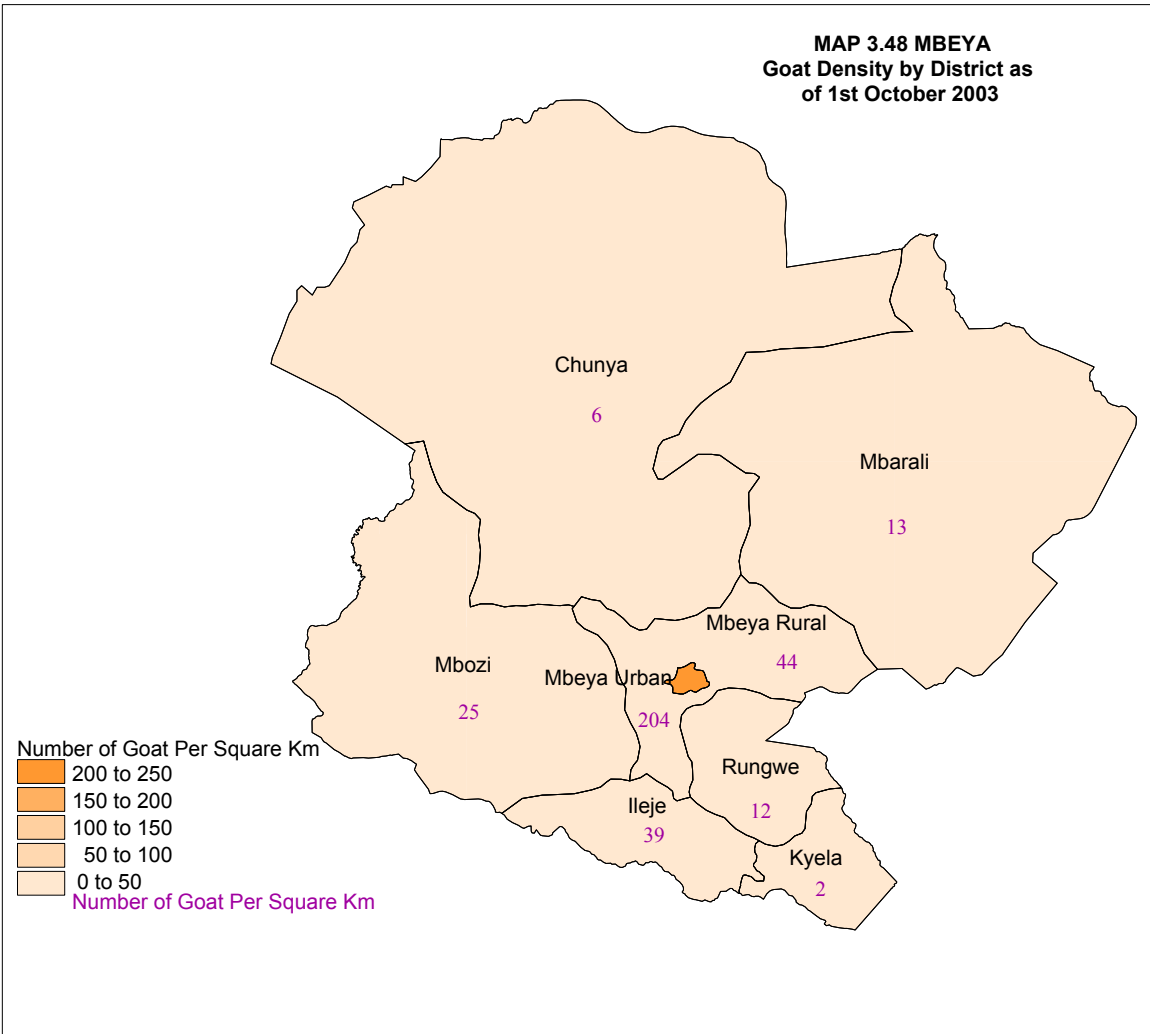
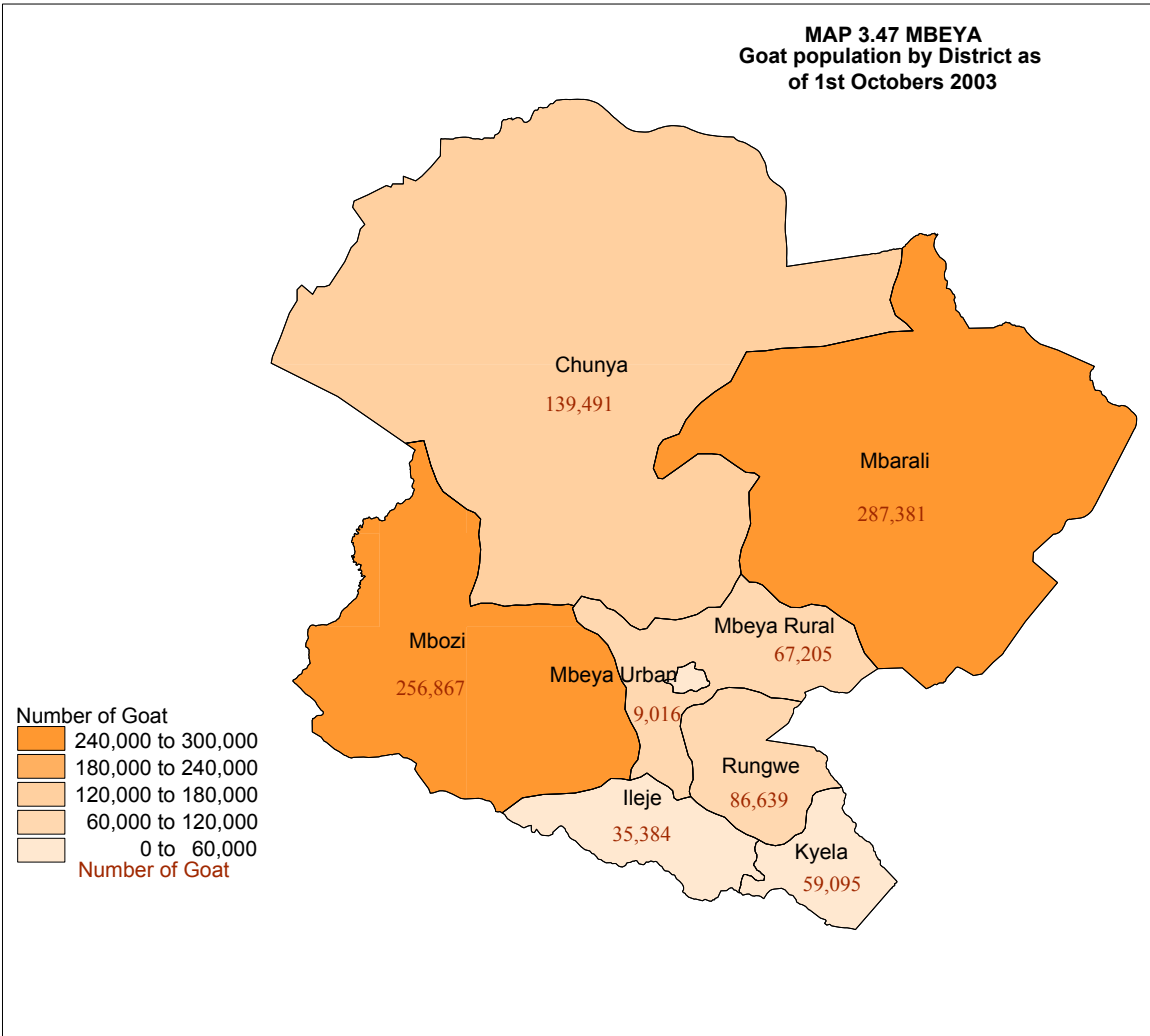


MAP 3.45 MBEYA
Cattle population by District as of 1st October 2003



MAP 3.46 MBEYA
Cattle Density by District as of 1st October 2003





3.12.8 Goat Herd Size

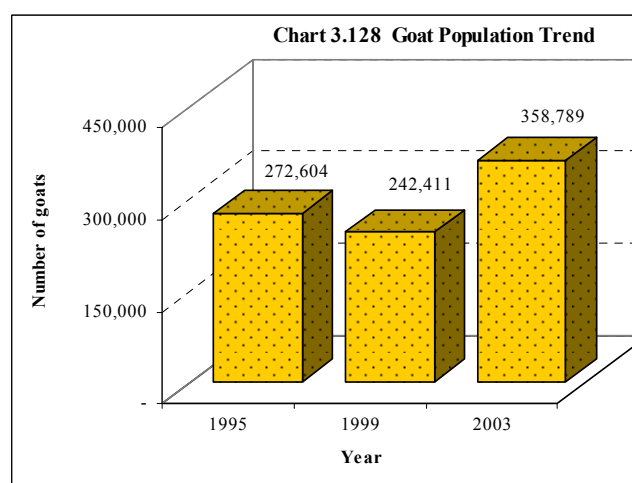
Sixty percent of the goat-rearing households had herd size of 1-4 goats with an average of 2 goats per goat rearing household. Ninety two percent of total goat-rearing households had herd size of 1-14 goats and owned 65 percent of the total goats in the region resulting in an average of 4 goats per goat-rearing households. The region had 692 households (1% of goat rearing households) with herd sizes of 40 or more goats each (35,454 goats in total), resulting in an average of 51 goats per household.

3.12.9 Goat Breeds

Goat husbandry in the region was dominated by the indigenous breeds which constituted 96 percent of the total goats in Mbeya region. Improved goats for meat and dairy goats constituted of 2 percent each breed.

3.12.10 Goat Population Trend

The overall annual growth rate of goat population from 1995 to 2003 was 3.5 percent. This positive trend involves four years of population increase from 242,411 goats in 1999 to 358,789 goats in 2003 at an annual rate of 10.3 percent. The number of goats decreased from 272,604 goats in 1995, at an estimated annual rate of (-2.9) percent to 242,411 goats in 1999. (Chart 128).

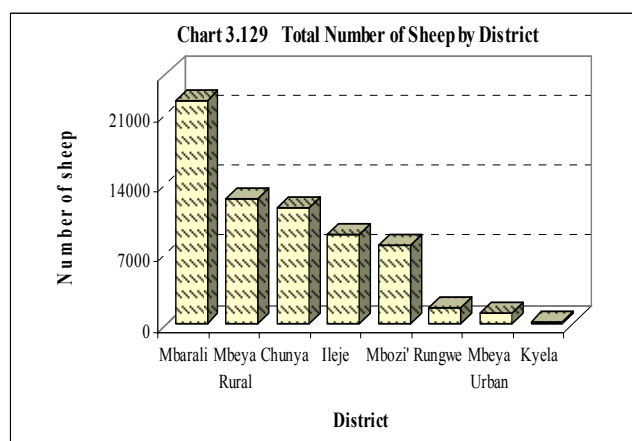


3.12.11 Sheep Production

Sheep rearing was the third most important livestock keeping activity in Mbeya region after cattle and goats. The region ranked 14th out of 21 Mainland regions and had 2 percent of all sheep on Tanzania Mainland.

3.12.12 Sheep Population

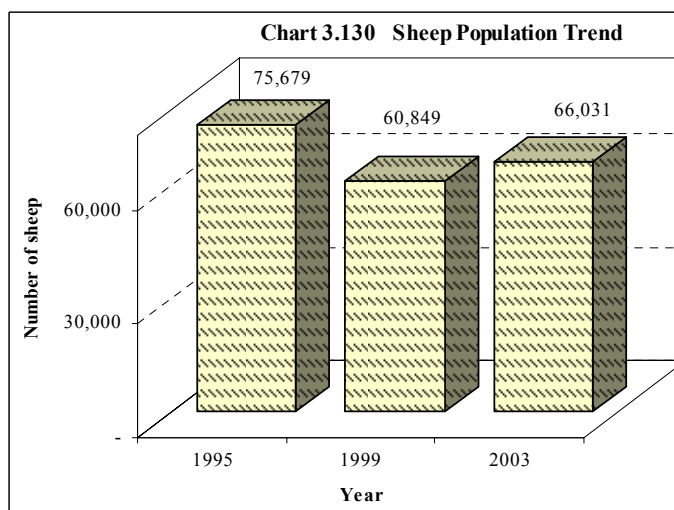
The number of sheep-rearing households was 11,605 (3% of all agricultural households in Mbeya region) rearing 66,031 sheep, giving an average of 6 heads of sheep per sheep-rearing household. The district with the largest number of sheep was Mbarali with 22,260 sheep (34% of total sheep in Mbeya region) followed by Mbeya Rural (12,519 sheep, 19%), Chunya (11,538 sheep, 17%), Ileje (8,966 sheep, 14%), Mbozi (7,794 sheep, 12%), Rungwe (1,612 sheep, 2.4%) and Mbeya Urban (1,072 sheep, 1.6%). Kyela district had the least number of sheep (269 sheep, 0.4%) (Chart 3.129 and Map 3.51). Chunya district had the highest density of sheep (18 head per km²) (Map 3.52).



Sheep rearing was dominated by indigenous breeds that constituted 94 percent of all sheep kept in the region. Only 6 percent of the total sheep in the region were improved breeds.

3.12.13 Sheep Population Trend

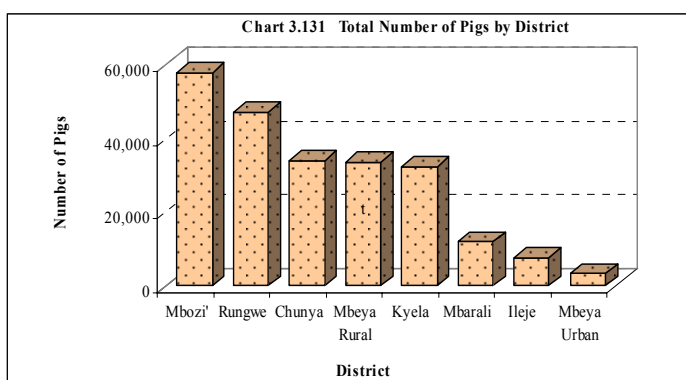
The overall annual growth rate of the sheep population over the eight year period from 1995 to 2003 is estimated at negative (-1.7) percent. The sheep population decreased at an annual rate of negative (-5.3) percent from 75,679 sheep in 1995 to 60,849 sheep in 1999. But, from 1999 to 2003, sheep population increased at an annual rate of 2.1 percent (Chart 3.130).



3.12.14 Pig Production

Pig production is the least important livestock keeping activity in the region after cattle, goats and sheep, however the region ranks first out of 21 Mainland regions for keeping pigs and it has 20 percent of the Mainland total pigs.

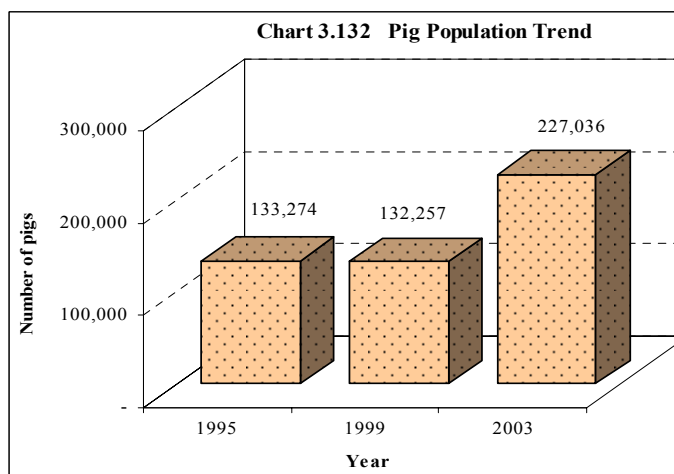
The number of pig-rearing agricultural households in Mbeya region was 78,724 (21% of the total agricultural households in the region) rearing 227,036 pigs. This gives an average of 3 pigs per pig-rearing household. The district with the largest number of pigs was Mbozi with 57,898 pigs (26% of the total pig population in the region) followed by Rungwe (47,019 pigs, 21%), Chunya (33,814 pigs, 15%), Mbeya Rural (33,535 pigs, 15%), Kyela (32,292 pigs, 14%), Mbarali (11,798 pigs, 5%), Ileje (7,516 pigs, 3%) and Mbeya Urban 3,164 pigs, 1%) (Chart 3.131 and Map 3.53).



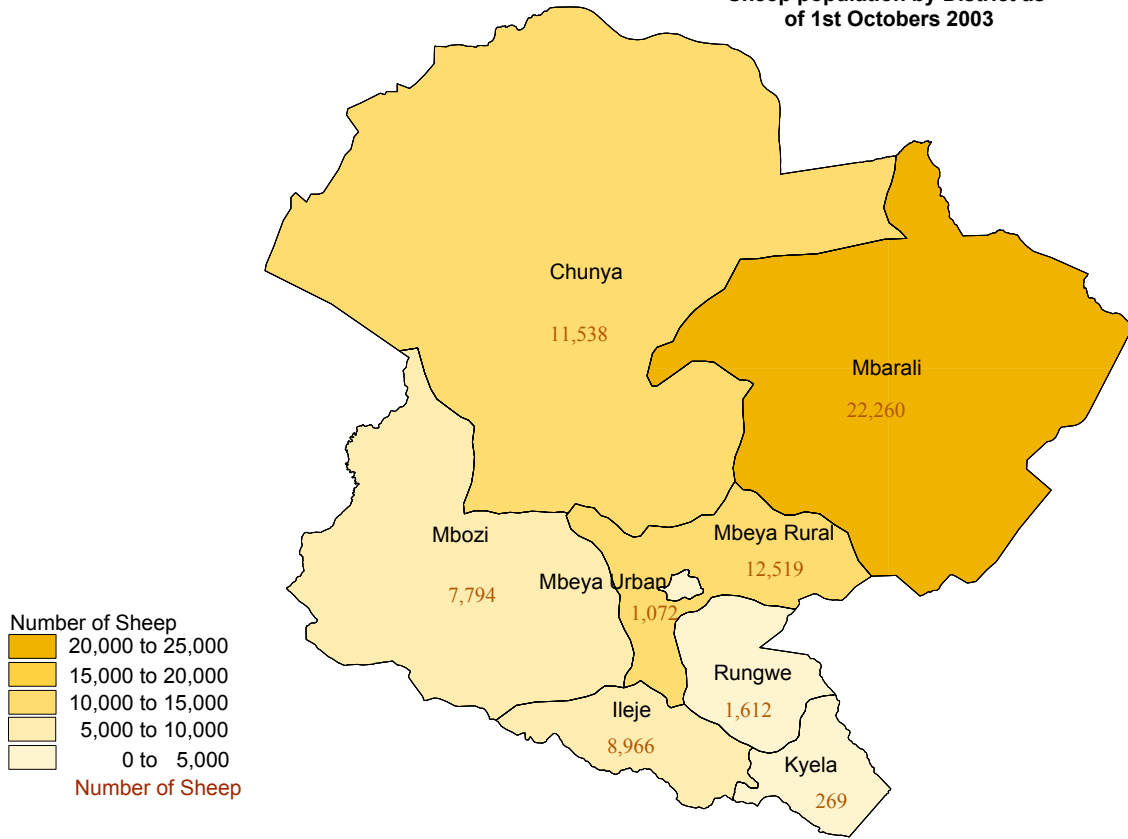
However Mbeya Urban district had the highest density (69 head per km²) (Map 3.54).

3.12.15 Pig Population Trend

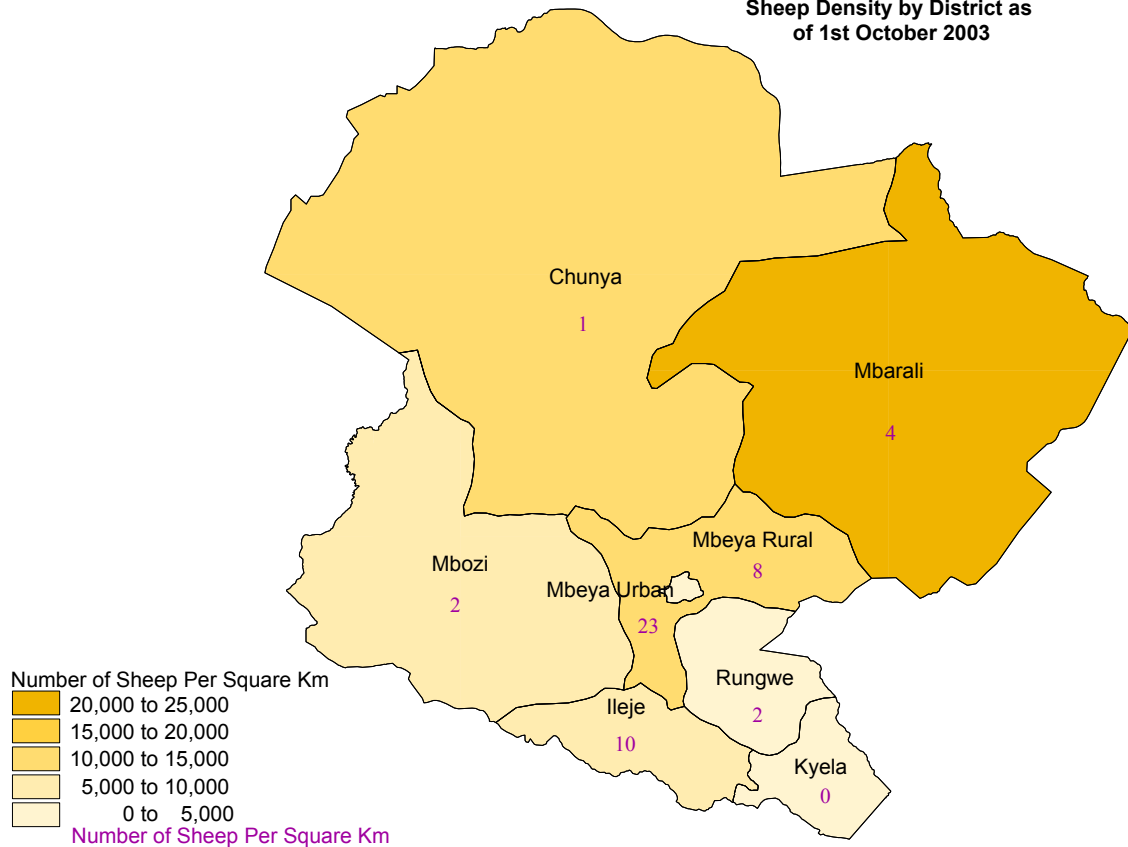
The overall annual growth rate of the pig population for the eight years period from 1995 to 2003 was 6.9 percent. During this period the pig population grew from 133,274 pigs to 227,036 pigs. The pig population decreased from 133,274 pigs in 1995 to 132,257 in 1999 at the annual rate of (-0.2) percent. However, the growth rate increased to 14.5 percent during the following four years from 1999 to 2003 in which pig population increased from 132,257 pigs to 227,036 pigs (Chart 3.132).

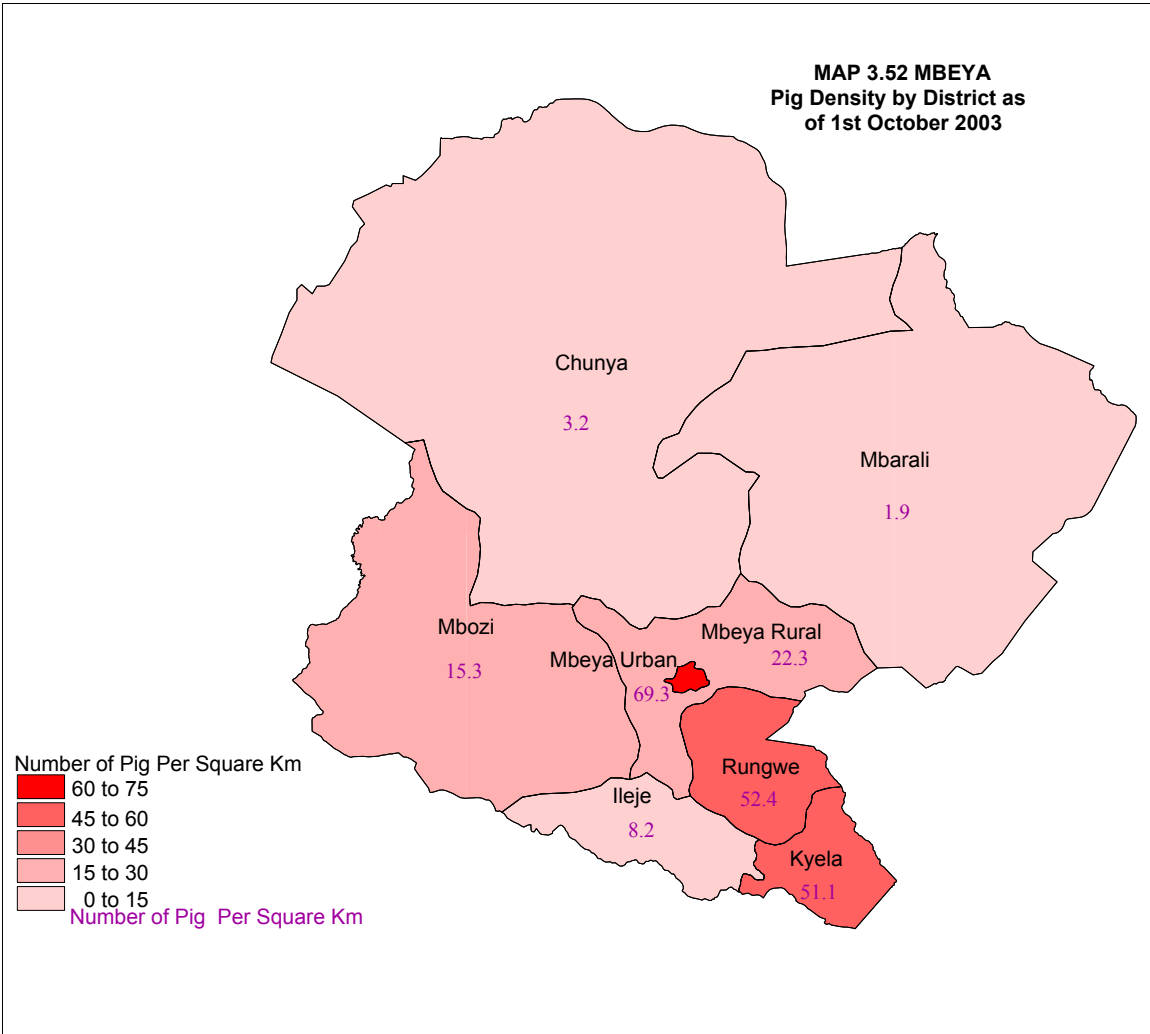
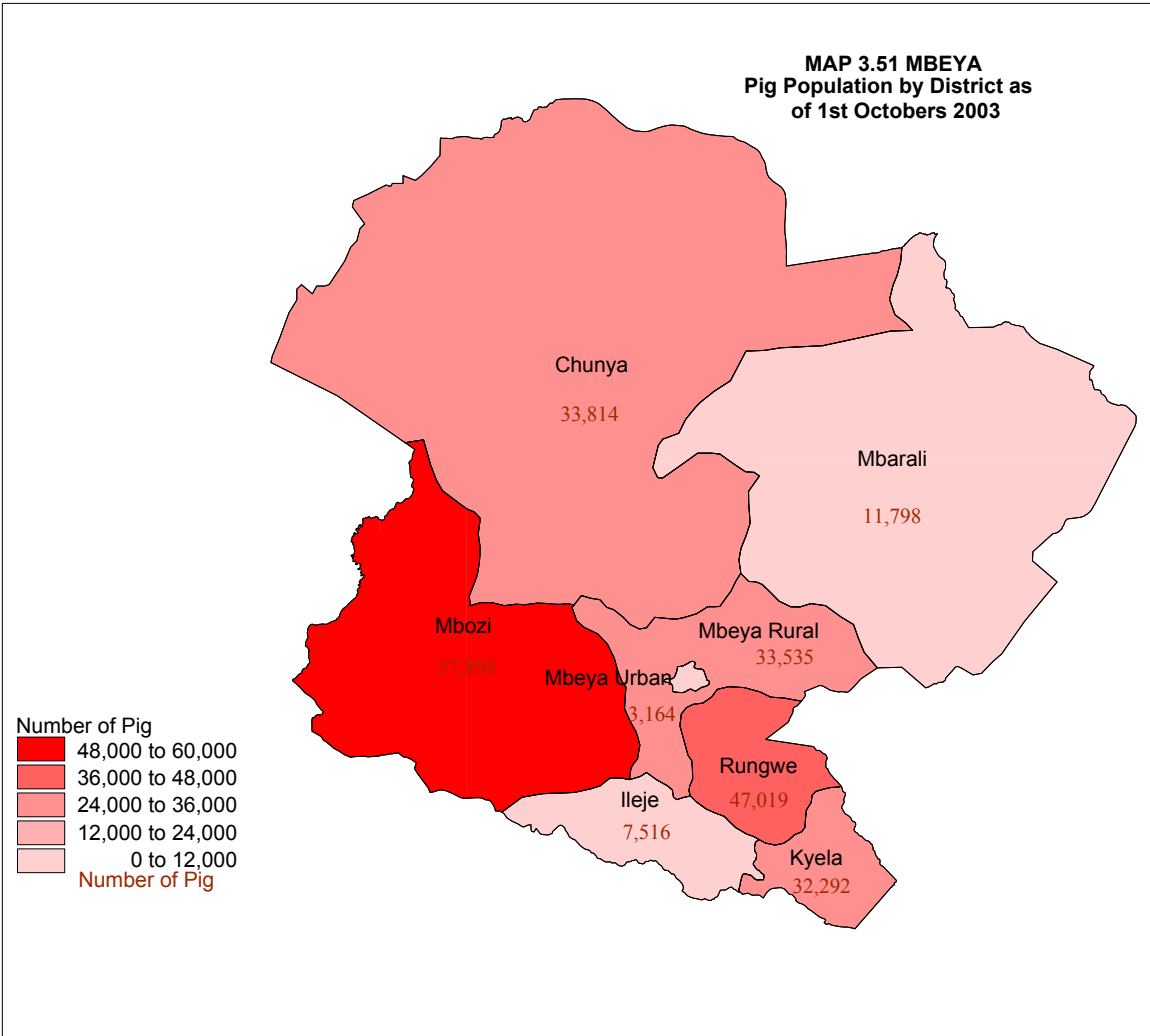


MAP 3.49 MBEYA
Sheep population by District as
of 1st Octobers 2003



MAP 3.50 MBEYA
Sheep Density by District as
of 1st October 2003





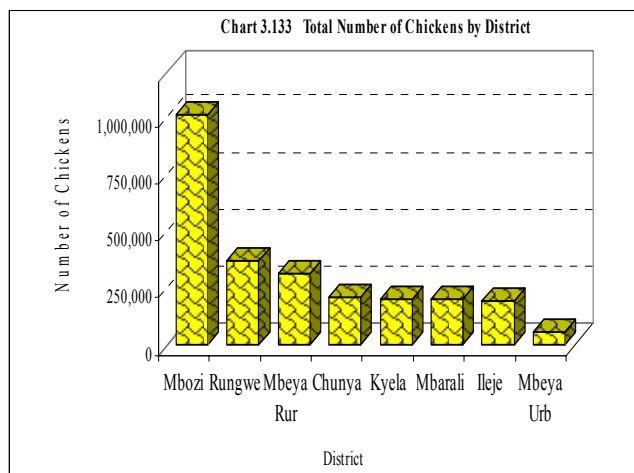
3.12.16 Chicken Production

The poultry sector in Mbeya region was dominated by chicken production. The region contributed 7.7 percent to the total chicken population on Tanzania Mainland.

3.12.17 Chicken Population

The number of households keeping chicken was 256,387 raising about 2,559,913 chickens. This gives an average of 10 chickens per chicken-rearing household. In terms of total number of chickens in the country, Mbeya region ranked third out of the 21 Mainland regions.

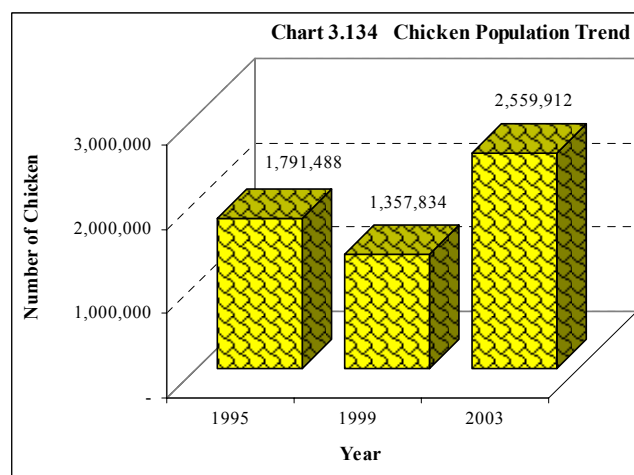
The District with largest number of chickens was Mbozi (1,009,714 chickens, 39% of the total number of chickens in the region) followed by Rungwe (373,004 chickens, 15%), Mbeya Rural (313,661 chickens, 12%), Chunya (207,975 chickens, 8%), Kyela (206,162 chickens, 8%), Mbarali (201,898 chickens, 8%) and Ileje (192,135 chickens, 8%). However, Mbeya Urban had the smallest number of chickens (55,364 chickens, 2%). (Chart 3.133 and Map 3.55). However Mbeya Urban district had the highest density of chickens (1,213 head per km²) (Map 3.56).



3.12.18 Chicken Population Trend

The overall annual chicken population growth rate during the eight-year period from 1995 to 2003 was 4.1 percent. The population decreased at a rate of (-5.4) percent from 1995 to 1999 after which it increased to 17.2 percent for the four year period from 1999 to 2003 (Chart 3.134).

About (97.4 %) of all chicken kept in Mbeya region were indigenous breed. The dominance of indigenous breed makes the population trend for the indigenous chicken more-or-less the same as that of the total chickens in the region.



3.12.19 Chicken Flock Size

The results indicate that about 88.2 percent of all chicken-rearing households were keeping 1-19 chickens at an average of 7 chickens per chicken keeping household. About 11.4 percent of holders were reported to be keeping flocks of size of 20 to 99 chickens with an average of 31 chickens per holder.

Only 0.3 percent of holders kept the flocks of 100 or more chickens at an average of 129 chickens per holder (Table 3.14).

3.12.20 Improved Chickens (layers and broilers)

The Layer population in Mbeya Region increased at an annual rate of 61 percent for the period of four years from were 9,762 layers in 1999 to 65,714 layers in 2003. Districts with significant number of improved chickens was most significant in Mbozi, Rungwe, Mbarali, and Mbeya Urban districts. (Chart 3.135).

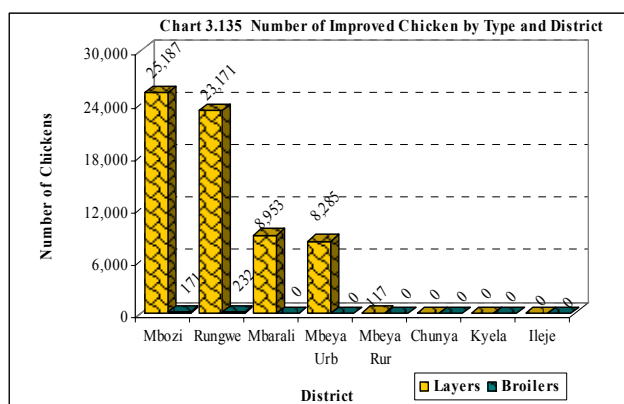
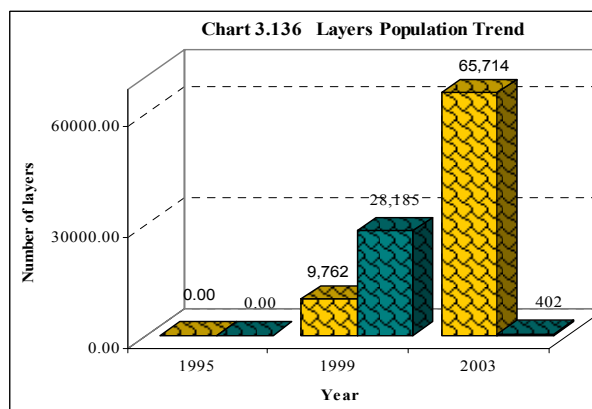


Table 3.15 Number of Households and Chickens Raised by flock Size

Flock Size	Number of Households	%	Number of Chicken	Average Chicken by Households
1 - 4	82,589	32.2	218,676	3
5 - 9	79,651	31.1	508,677	6
10 - 19	63,931	24.9	812,012	13
20 - 29	17,290	6.7	390,034	23
30 - 39	6,083	2.4	196,672	32
40 - 49	3,376	1.3	141,848	42
50 - 99	2,642	1.0	185,128	70
100+	826	0.3	106,865	129
Total	256,387	100.0	2,559,913	10



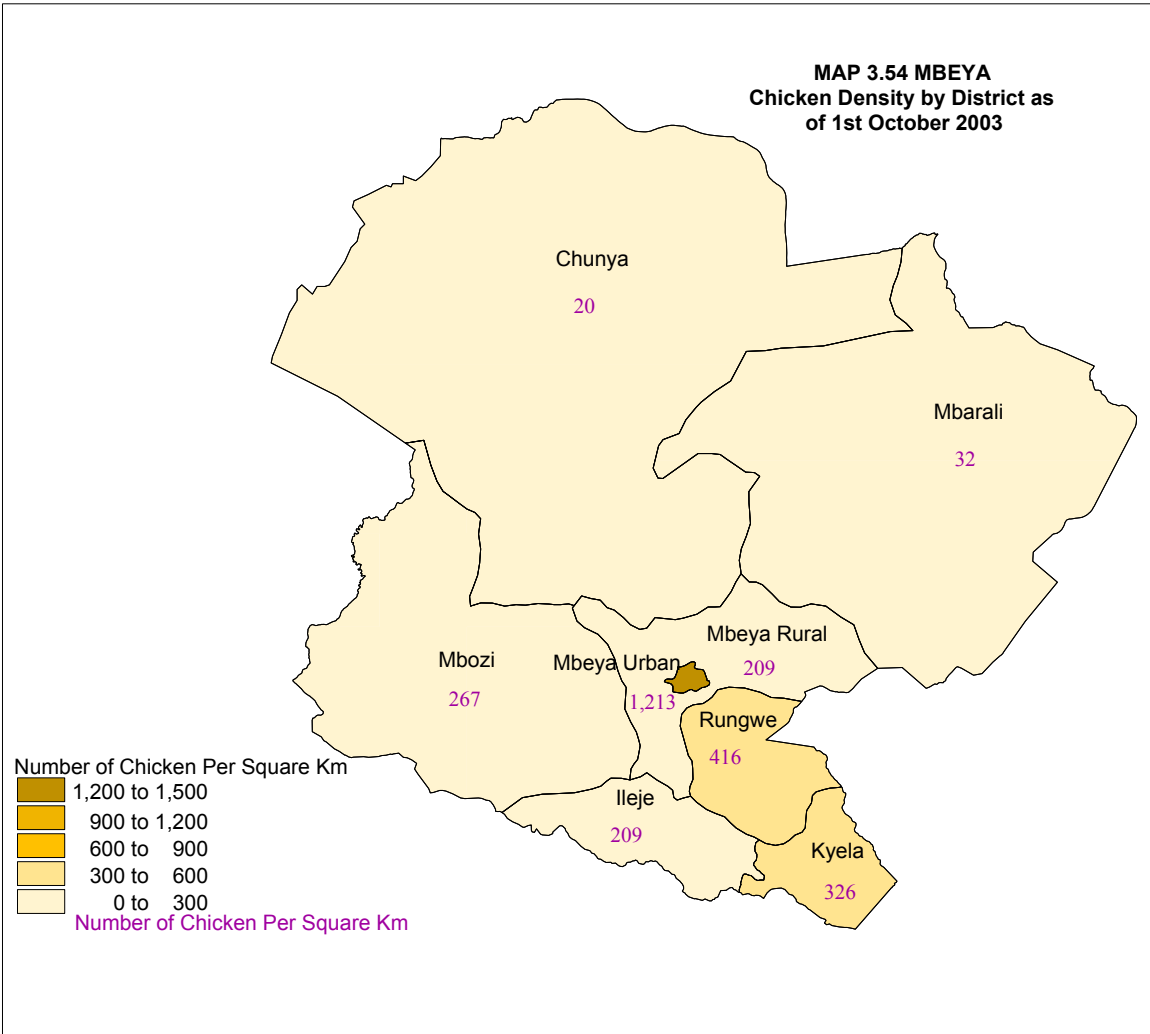
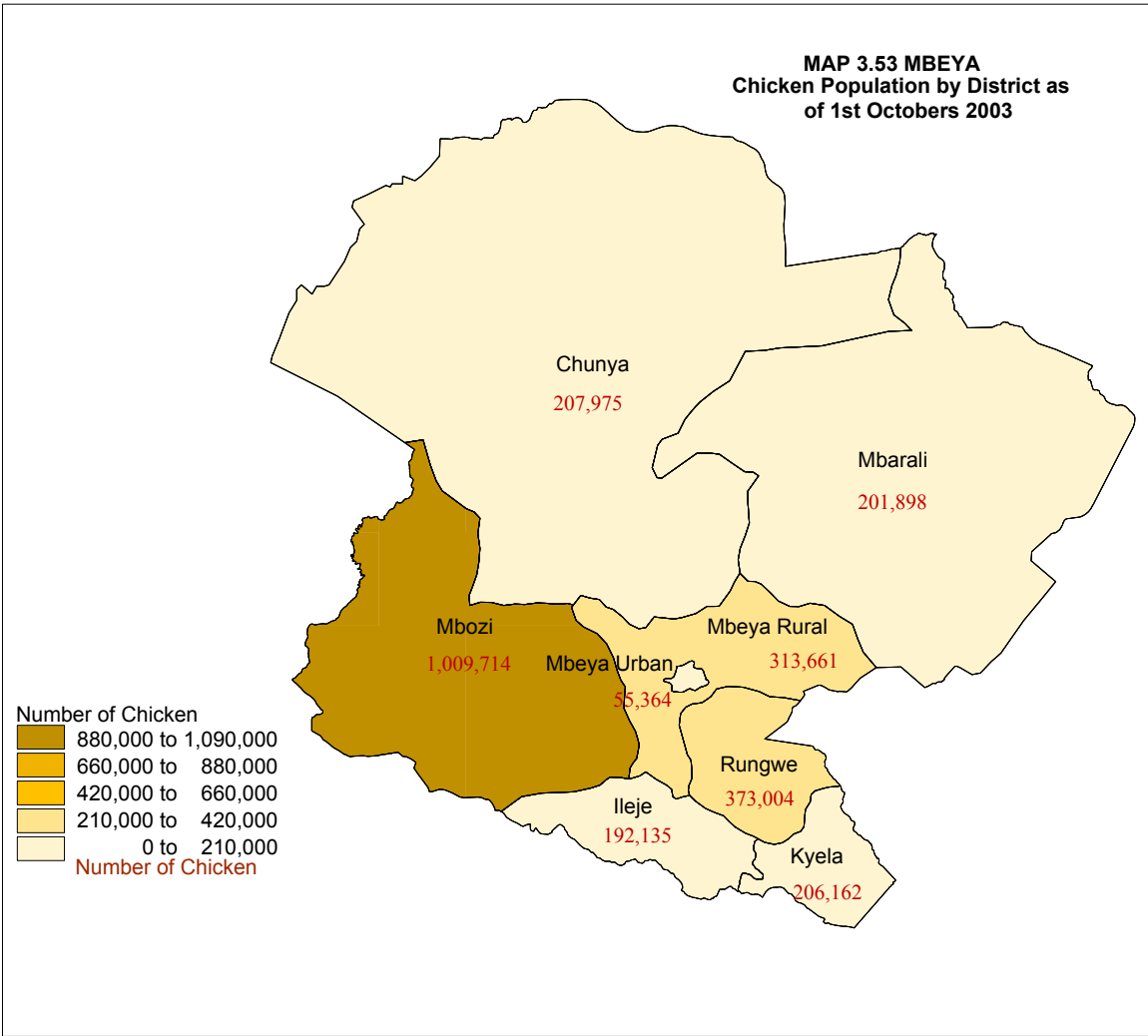
The overall annual growth rate of growth for broilers during the four year period from 1999 to 2003 was (-64.5) percent during which the population decreased from 26,165 to 402. The annual growth rate was higher (-64.5%) for the period of four years from 1999 to 2003. In 1995 the broilers population was not recorded (Chart 3.136).

3.12.6. Other Livestock

In Mbeya Region there were 91,591 ducks, 7,538 turkeys, 122,079 rabbits and 11,373 donkeys raised by rural agricultural households. Table 3 -16 gives the number of other livestock kept in each district. The biggest number of ducks in the region was found in Mbozi district (33% of all ducks in the region), followed by Chunya (18%), Mbarali (17%), Rungwe (15%), Kyela (6%), Ileje (5%), Mbeya Rural (4%) and Mbeya Urban (2). Turkeys were reported in Mbeya Rural, Ileje, Mbozi and Mbeya Urban districts only (Table 3.14).

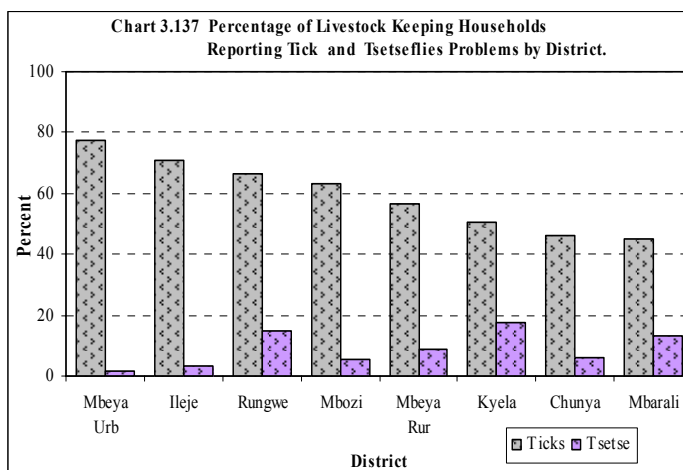
Table 3.16 Number of Other Livestock by Type of Livestock and District

District	Type of Livestock				
	Ducks	Turkeys	Rabbits	Donkeys	Other
Chunya	16,685	0	2,502	845	7,828
Mbeya Rural	3,741	2,668	15,031	1,565	1,905
Kyela	5,419	0	169	7,309	0
Rungwe	13,553	0	1,939	0	0
Ileje	4,412	3,883	8,190	0	623
Mbozi	30,585	892	25,747	1,428	3,795
Mbarali	15,316	0	66,871	227	0
Mbeya Urban	1,881	94	1,629	0	227
Total	91,591	7,538	122,079	11,373	14,378



3.13 Pest and Parasite Incidence and Control

The results indicate that 60 percent and 10 percent of the total livestock-keeping households reported to have encountered ticks and tsetse fly problems respectively. (Chart 3.137) shows that there was a predominance of tick's related diseases over tsetse flies related diseases. Incidences of both problems were highest in Mbeya Urban district but lowest in Mbarali district (Map 3.57).

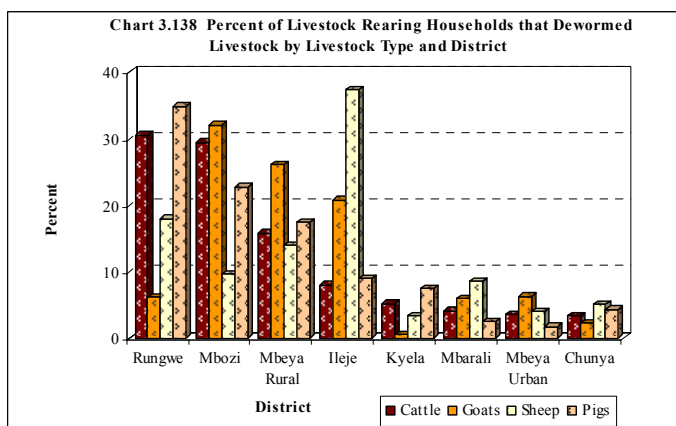


The most practiced method of tick control was spraying with 66 percent of all livestock-rearing households in the region using this method. Other methods used were dipping (5%), smearing (1%) and other traditional methods like hand picking (8%). However, 20 percent of livestock-keeping households did not use any method.

The most common method used to control tsetse flies was spraying which was practiced by 27 percent of livestock-rearing households. This was followed by dipping (3%). However, 70 percent of the livestock rearing households did not use any of the three aforementioned methods.

3.13.1 De-worming

Livestock rearing households that de-wormed their animals were 100,282 (71% of the total livestock rearing households in the region). The percentage of the households that de-wormed cattle was 52 percent, goats (13%), sheep (5%) and pigs (30%) (Chart 3.138).

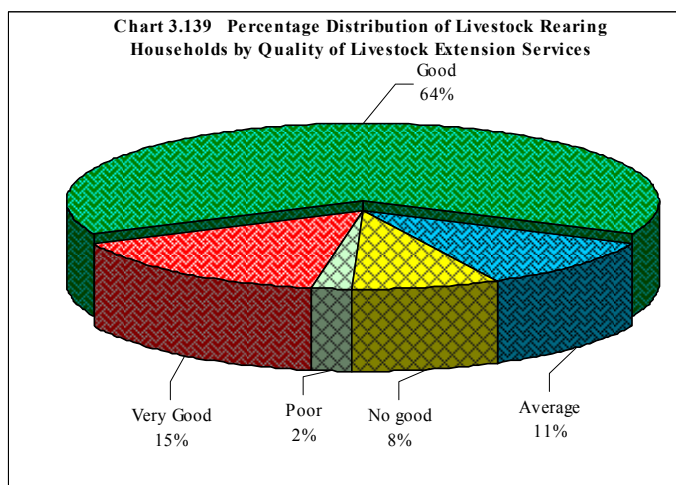


3.13.2 Access to Livestock Services

3.12.8.1 Access to Livestock Extension Services

Services

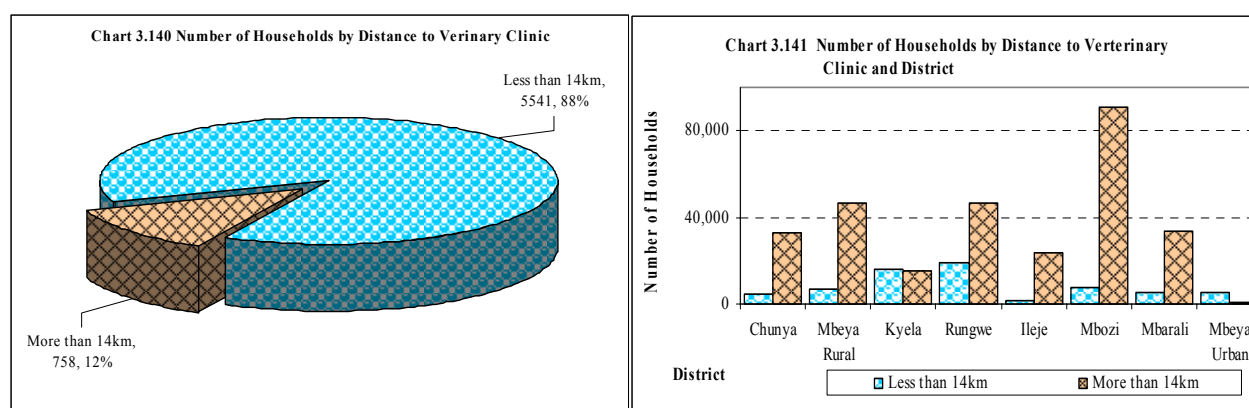
The total number of households that received livestock advice was 83,789, representing 64 percent of the total livestock-rearing households and 22 percent of the agricultural households in the region. The main livestock extension agent was the government which provided service to about 47 percent of all households receiving livestock extension services. The rest of the households got services from NGOs/development projects (15%), co-operatives and large scale farms (13%) each and other providers (12%).



About 64 percent of livestock rearing households described the general quality of livestock extension services as being good, 15 percent said that the services were very good, and 11 percent described them as average. However, 8 percent of the livestock rearing households said the quality was poor, whilst 2 percent described the services being not good (Chart 3.139).

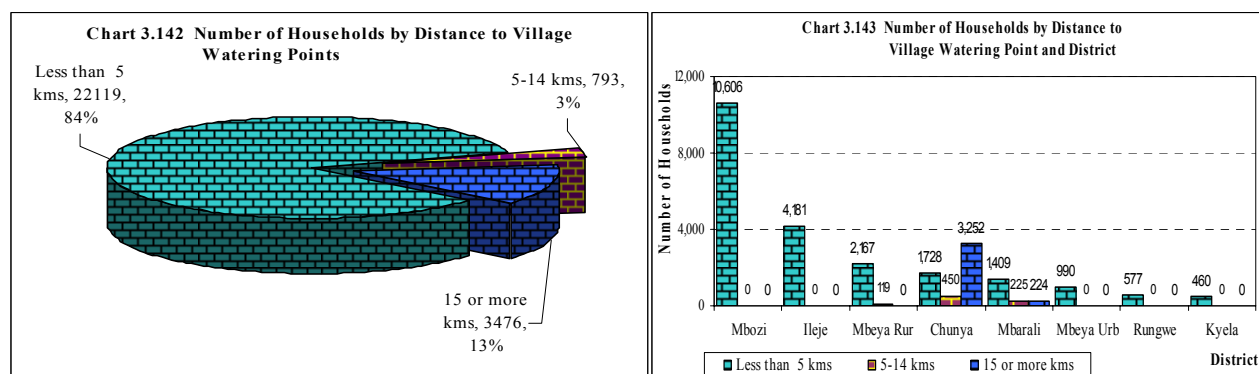
3.13.3 Access to Veterinary Clinic

Many veterinary clinics were located nearby livestock rearing households. About 55 percent of the livestock rearing households accessed the veterinary clinic services, at a distance of more than 14 kms. And only 5 percent of the households accessed them at a distance of 14 kms from or less their dwellings (Chart 3.140). The most affected district was Mbozi district with 88 percent of all livestock rearing households accessing the services at a distance of more than 14 kms. Mbeya Urban district was the least affected with about 7 percent of the households accessing the service at a distance of more than 14 kilometers. (Chart 3.141).



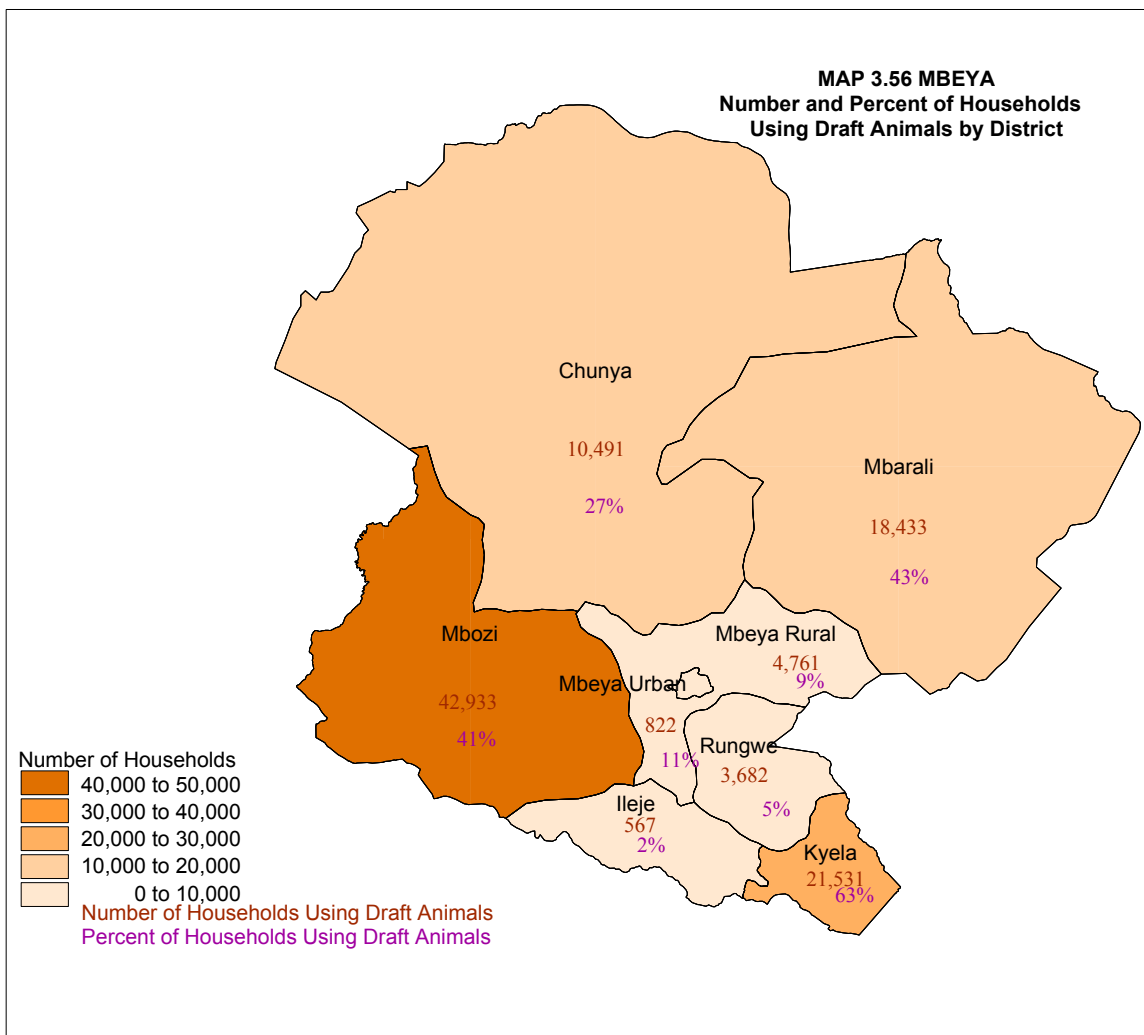
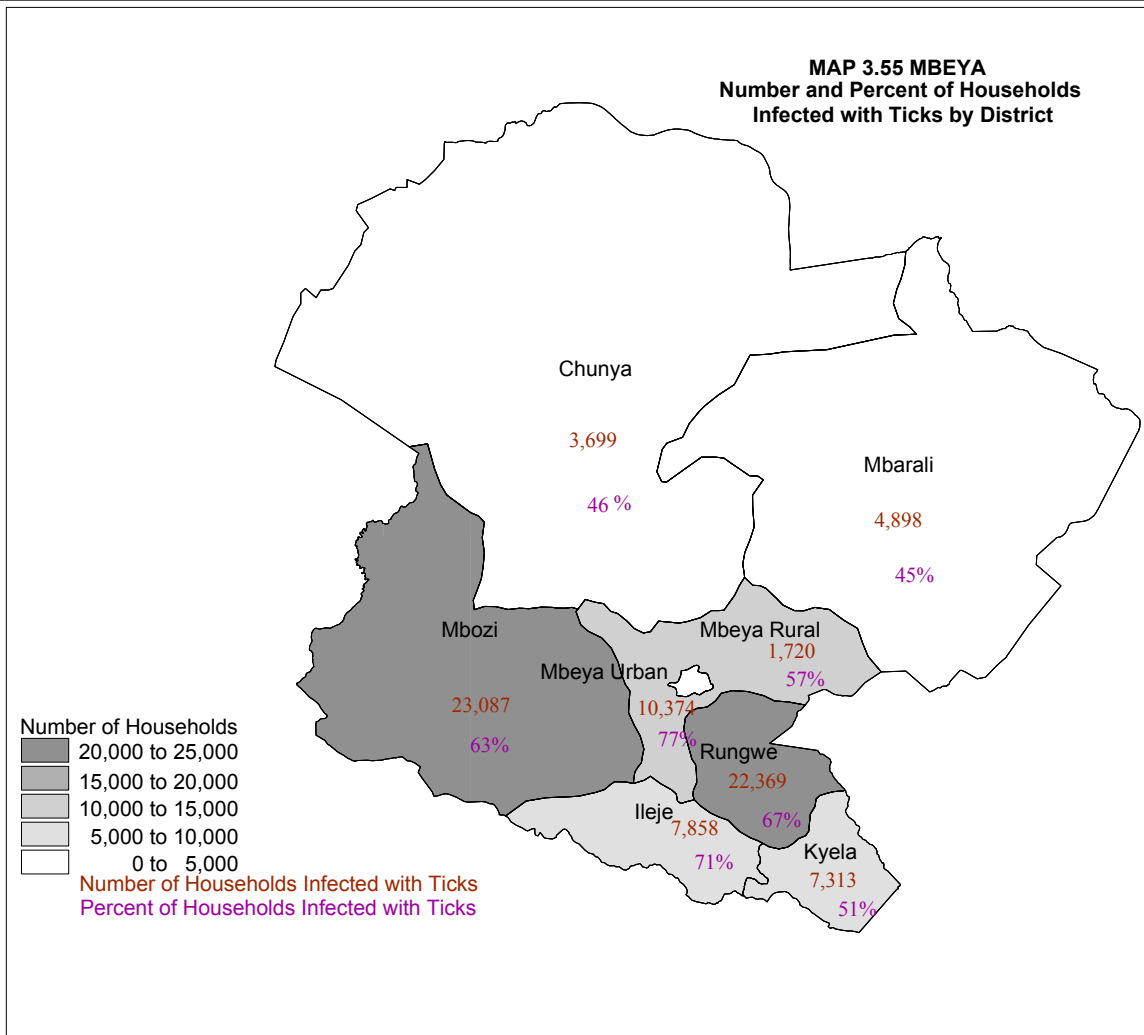
3.13.4 Access to Village Watering Points/dam

The number of livestock rearing households residing less than 5 kms from the nearest watering point was 22,119 (84% of the livestock rearing households accessing the watering points in Mbeya region) whilst 793 households (3%) resided



between 5 and 14 kms. However, 3,476 households (13%) had to travel a distance of 15 or more kms to the nearest watering point (Chart 3.142).

Mbozi district had the best livestock water supply with the majority of livestock rearing households residing within 5

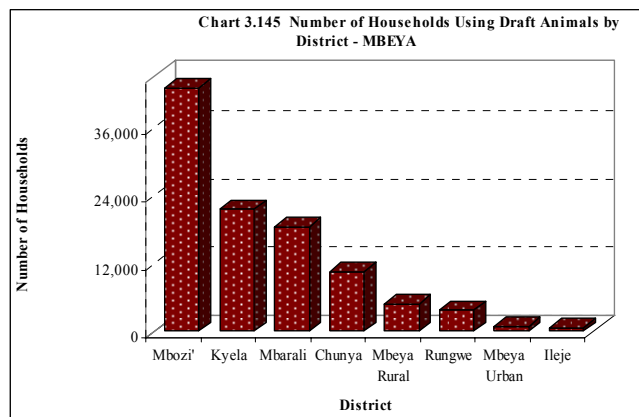
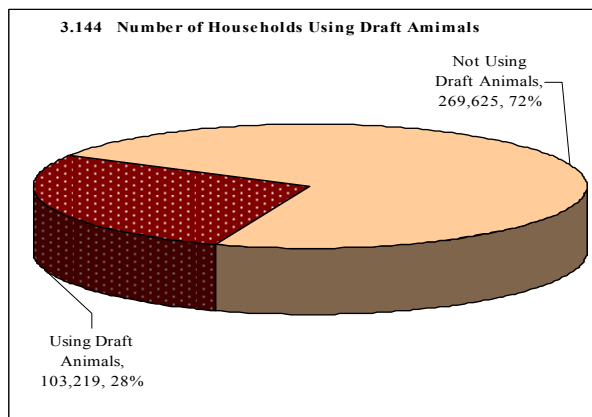


kms from the nearest watering point. This was followed by Ileje, Mbeya Rural, Chunya, Mbarali, Mbeya Urban and Rungwe. In Kyela district about 2 percent of the livestock rearing households had to travel a distance of more than five kilometers to the nearest watering point (Chart 3.143).

3.14 Animal Contribution to Crop Production

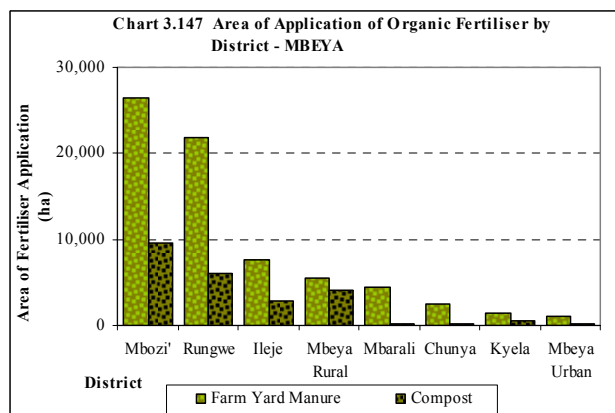
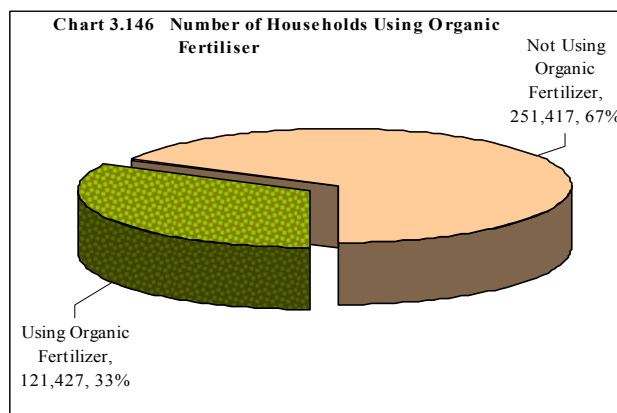
3.14.1 Use of Draft Power

Use of draft animals to cultivate land in Mbeya region was limited with 103,219 households (28% of the total agricultural households in the region) using them (Chart 3.144).



The highest number of households using draft animals was in Mbozi with 42,933 households representing 41 percent of the households using draft animals in the region. This was followed by Kyela (21,531 households, 20.9%), Mbarali (18,433 households, 18%), Chunya (10,491 households, 10.2%), Mbeya Rural (4,761 households, 0.6%), Rungwe (3,682 households, 3.6%), Mbeya Urban (822 households, 0.8%) and Ileje (567 households, 0.5%). (Chart 3.145 and Map 3.58).

The region had 114,206 oxen that cultivated 147,545 hectares. The district with the largest number of oxen was Mbozi (43,361). This was followed by Mbarali (26,073 oxen), Chunya (18,123 oxen), Kyela (17,496 oxen), Mbeya Rural (6,714 oxen), Rungwe (1,608 oxen), Mbeya Urban (711 oxen) and Ileje (120 oxen). The number of oxen in the region accounted for 5 percent of the total oxen found on the Mainland. The largest area cultivated using oxen was found in Mbozi district (57,041 ha, 40% of the total area cultivated using oxen).



3.14.2 Use of Farm Yard Manure

The number of Households using organic fertilizer in Mbeya region was 121,427 (33% of total crop growing households in the region) (Chart 3.146). The total area applied with organic fertiliser was 23,117 ha of which 174,399 hectares (75% of the total area applied with organic fertiliser or 42% of the area planted with annual crops and vegetables in Mbeya region during the long rainy season) was applied with farm yard manure (Map 3.59).

3.12.9.3 Use of Compost

About 57,720 ha (25% of the area applied with organic fertilizers was applied with compost. The largest area applied with farm yard manure was found in Mbozi district with 9,579 hectares (41% of the total area applied with farm yard manure) followed by Rungwe (6,012 ha, 26%), Mbeya Rural (4,156 ha, 18%), Ileje (2,771 ha, 12%), Kyela (473 ha, 2%), Mbarali (173 ha, 1%), Mbeya Urban (113 ha, 0.5% and Chunya (92 ha, 0.4%) (Chart 3.147 and Map 3.60).

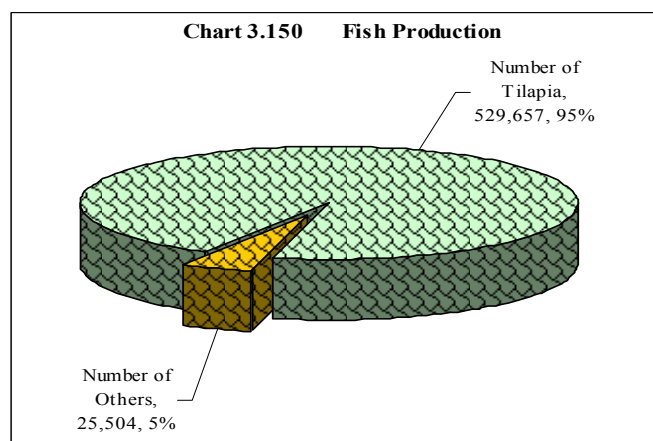
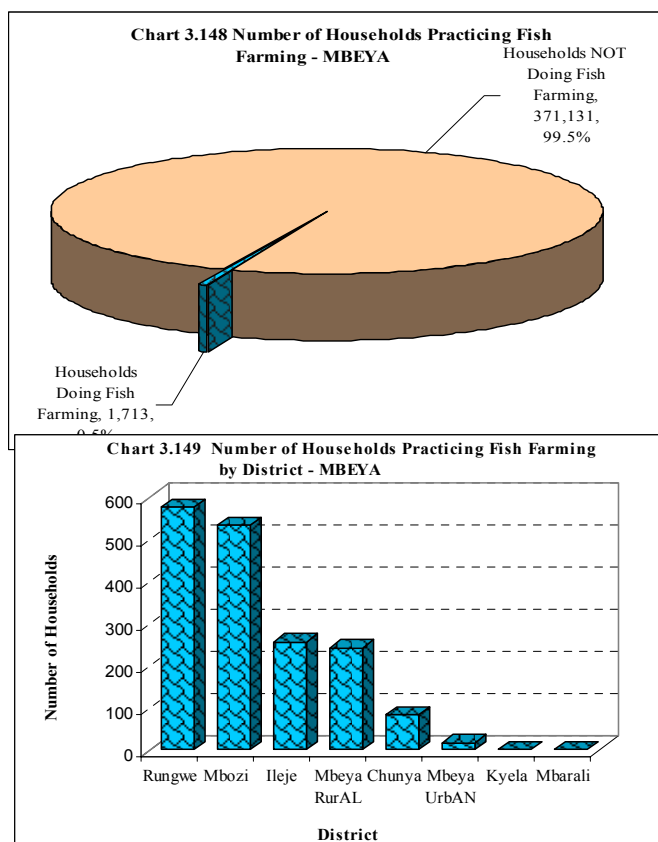
3.12.10 Fish Farming

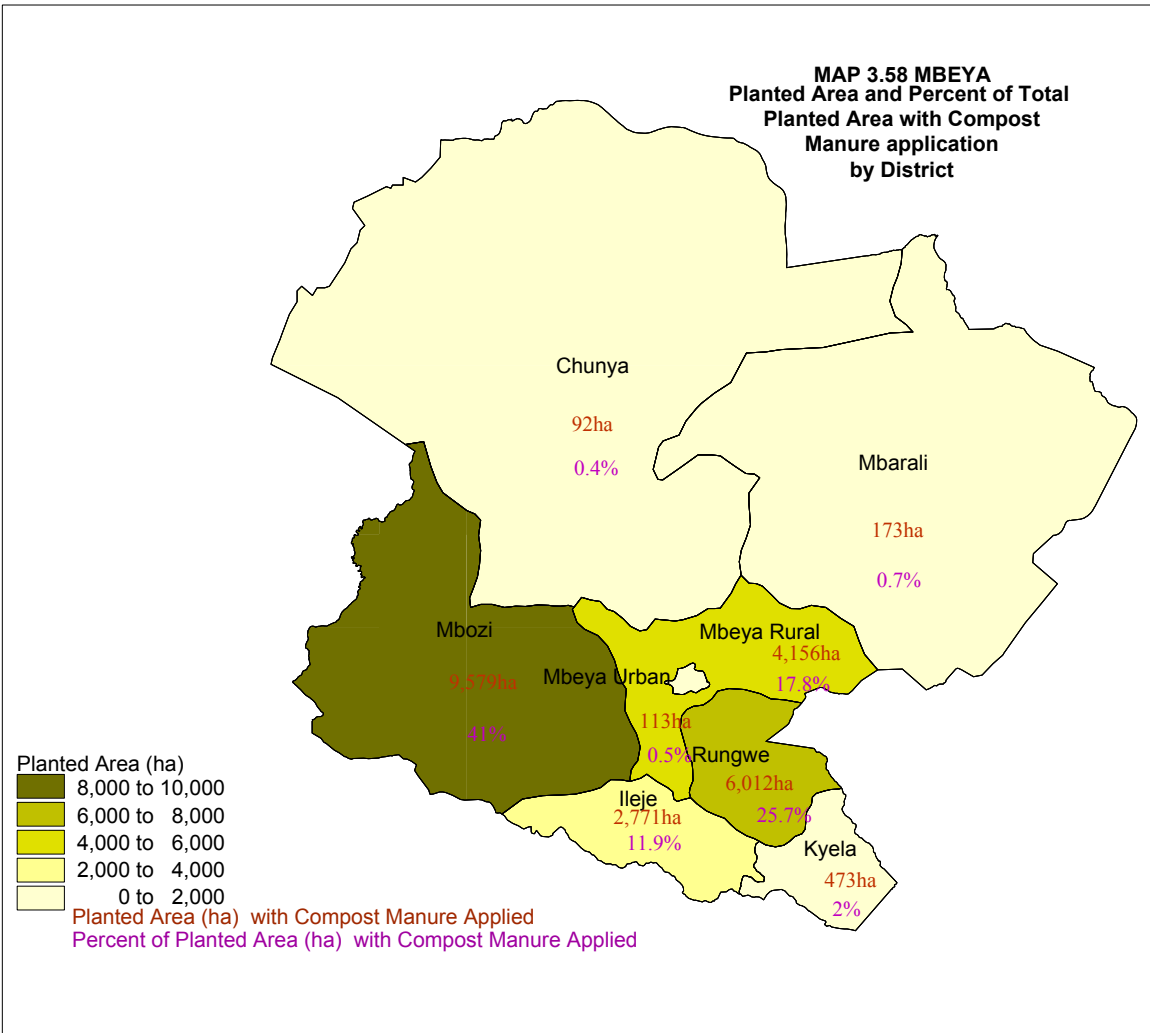
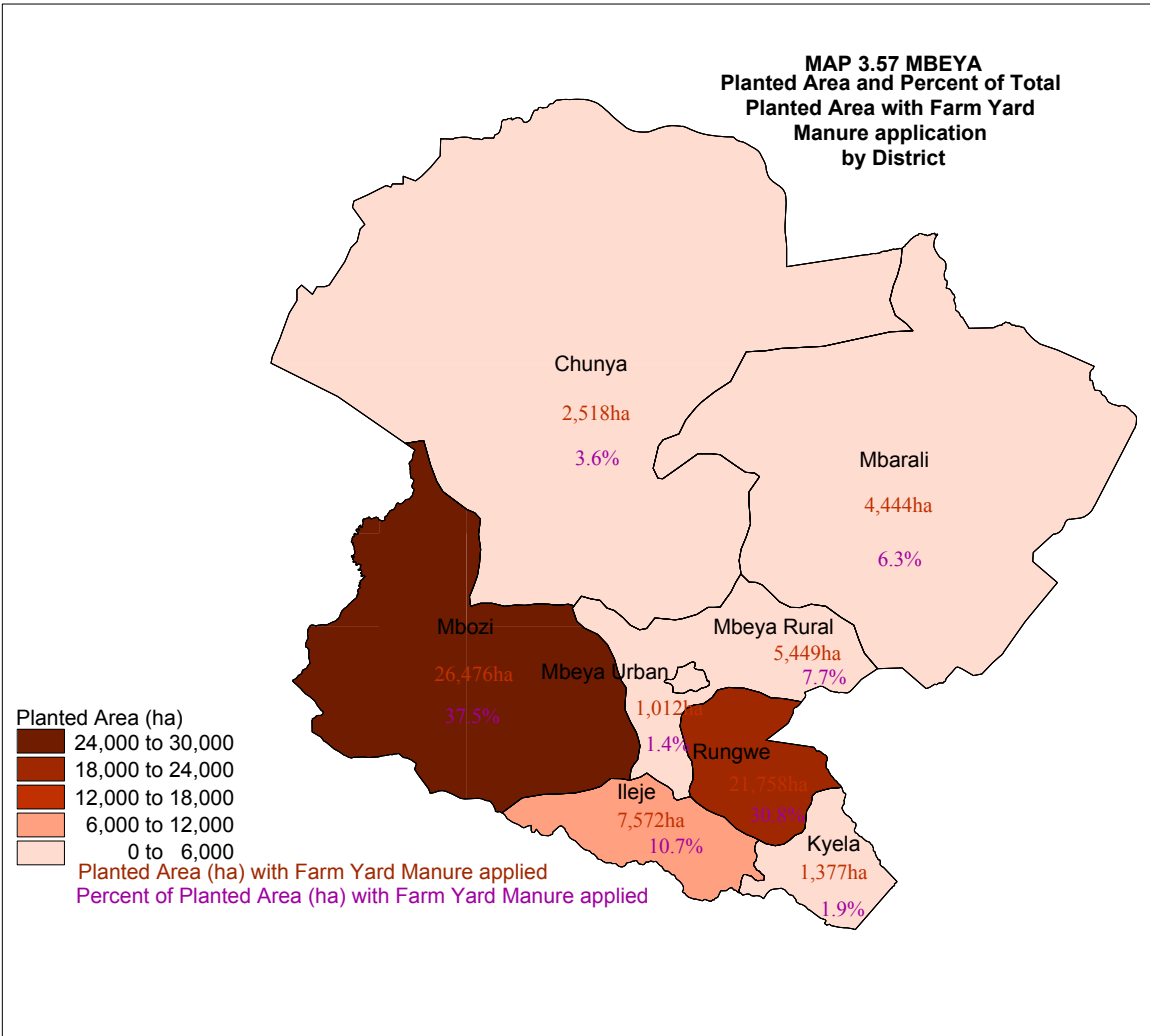
The number of households involved in fish farming in Mbeya region was 1,713, representing 0.5 percent of the total agricultural households in the region (Chart 3.148 and Map 3.61).

Rungwe was the leading district with 578 households (34% of agricultural households involved in fish farming). This was followed by Mbozi (534 households, 31%), Ileje (256 households, 15%), Mbeya Rural (243 households, 14%), Chunya (84 households, 5%) and Mbeya Urban (17 households, 1%). However, fish farming was not practiced in Kyela and Mbarali districts (Chart 3.149).

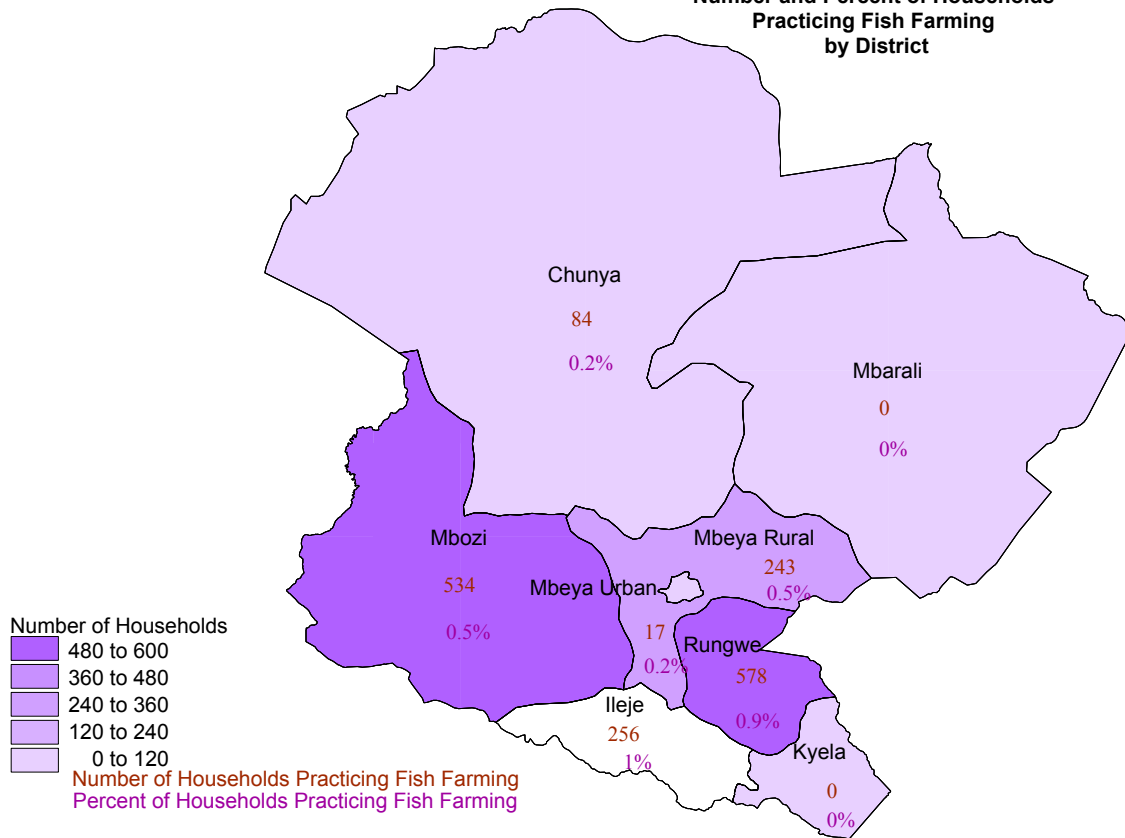
The main source of fingerings was from neighbours which provided fingerings to 60 percent of the fish farming households. This was followed by government institutions (28%), NGO's/Projects (7%) and from owned ponds (5%).

All fish farming households in the region used the pond system particularly the dug-out-ponds and the main fish specie planted was Tilapia. The number of fish harvested in Mbeya region was 555,161 of which 529,657 fish (95%) was tilapia and 25,504 (5%) were other types of fish (Chart 3.150). About 53 percent of the fish farming households sold their fish to neighbours and traders at farm. However, about 47 percent of fish farming households did not sell.

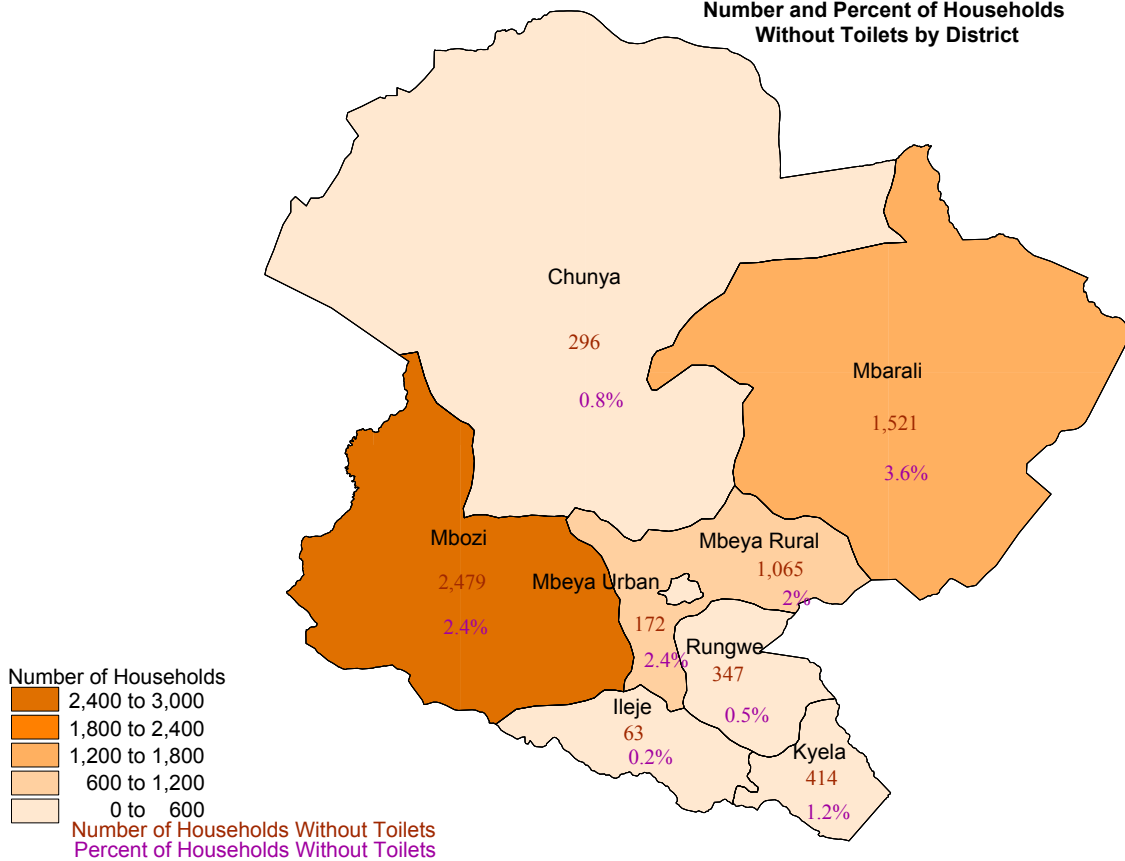




MAP 3.59 MBEYA
Number and Percent of Households Practicing Fish Farming by District



MAP 3.60 MBEYA
Number and Percent of Households Without Toilets by District



3.13. POVERTY INDICATORS

The agricultural census collected data on poverty for the purpose of providing the basis for tracking progress in poverty reduction strategies undertaken by the government.

3.13.1 Access to Infrastructure and Other Services

The results indicate that among the evaluated services, the regional capital was the service located very far from most of the households' dwellings than any other service. It was located at an average distance of 97.6 kilometers from the agricultural household's dwellings. Other services and their respective average distances in kilometers from the dwellings were: tarmac road (37.1 km), hospital (35.9 km), tertiary market (26.9 km), secondary market (18.8 km), secondary school (14.4 km), primary market (8.7 km), health clinics (5.6 km), primary school (3.2 km) all weather road (3.1 km) and feeder road (1.1 km) (Table 3.15).

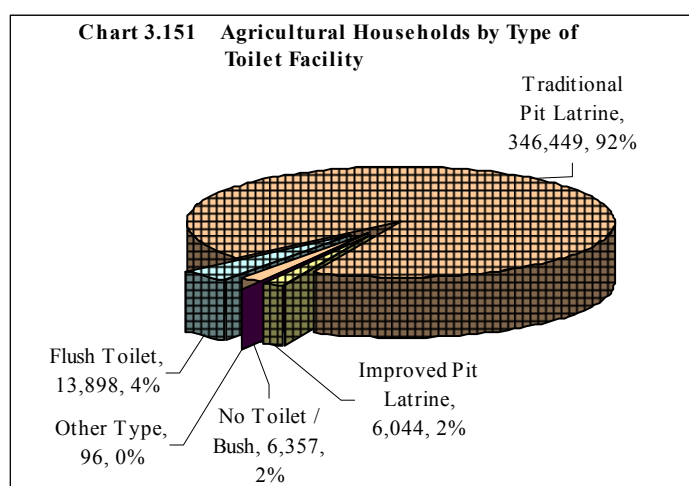
Table 3.16: Mean distances from holders dwellings to infrastructures and services by districts

District	Mean Distance to										
	Secondary Schools	Primary Schools	All weather roads	Feeder roads	Hospitals	Health Clinics	Regional Capital	Primary Markets	Secondary Market	Tertiary Market	Tarmac roads
Chunya	28.4	1.7	4.8	1.5	54.3	6.1	113.7	16.9	26.1	34.5	105.5
Mbeya Rural	15.0	10.4	2.4	0.4	37.5	5.5	40.3	6.9	23.4	26.5	24.0
Kyela	8.6	1.7	2.5	0.9	16.2	4.5	123.5	5.4	12.4	14.0	11.1
Rungwe	9.7	2.2	1.8	1.1	17.8	4.4	82.9	6.7	18.0	22.4	21.3
Ileje	16.1	2.3	2.9	2.6	43.3	5.4	144.3	8.5	22.0	40.9	64.6
Mbozi	15.4	1.8	3.7	0.8	41.5	7.1	111.5	10.7	19.3	30.8	37.4
Mbarali	11.9	2.5	3.8	2.0	47.9	5.5	110.2	5.3	10.6	23.5	26.0
Mbeya Urban	3.8	1.4	0.4	0.2	10.1	3.2	11.0	4.2	11.2	7.6	3.5
Total	14.4	3.2	3.1	1.1	35.9	5.6	97.6	8.7	18.8	26.9	37.1

3.13.2 Type of Toilets

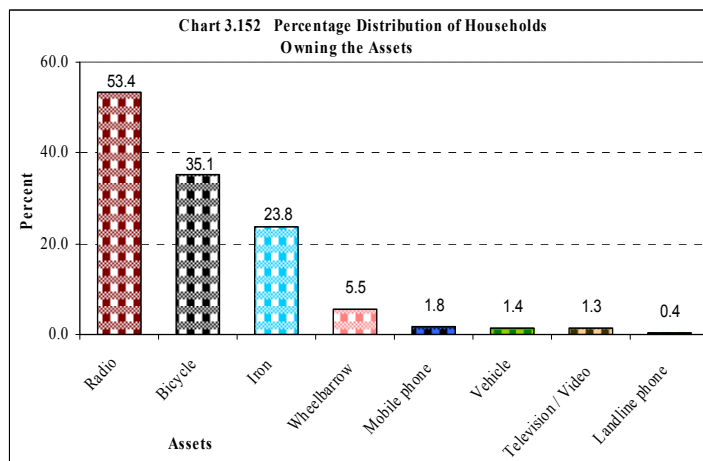
A large number of rural agricultural households used traditional pit latrines (346,449 households, 92% of all rural agricultural households), 13,898 households (4%) used flush toilets, 4,663 households (2%) use improved pit latrine and 96 households used other facilities. However, 6,357 households (2%) in the region had no toilet facilities (Chart 3.151).

The distribution of the households without toilets within the region indicates that 39 percent of them were found in Mbozi District and 1 percent was from Ileje. Moreover, the percentages of households without toilets in other districts were as follows Mbarali (24%), Mbeya Rural (17%), Kyela (7%), Chunya and Rungwe districts had (5%) each and Mbeya Urban (3%). (Map 3.62).



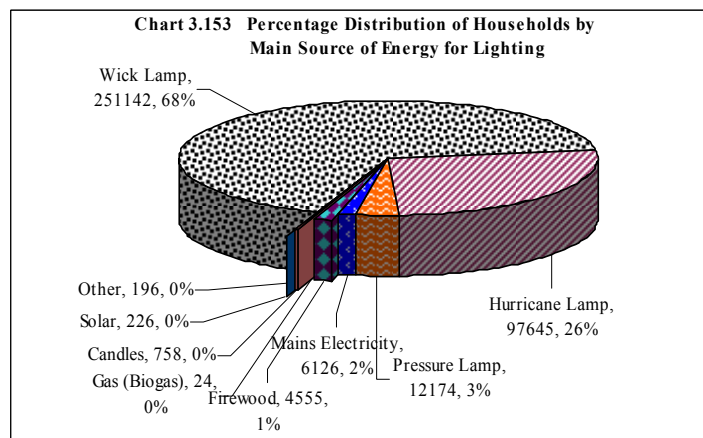
3.13.3 Household's Assets

Radios were owned by most rural agricultural households in Mbeya region with 199,134 households (53.4% of the agriculture households in the region) owning the asset. This was followed by bicycle (130,803 households, 35.1%), iron (88,658 households, 23.8%), wheelbarrow (20,595 households, 5.5%), mobile phone (6,803 households, 1.8%), vehicle (5,318 households, 1.4%) television/video (4,730 households, 1.3%), and landline phone (1,533 households, 0.4%) (Chart 3.152).



3.13.4 Sources of Lighting Energy

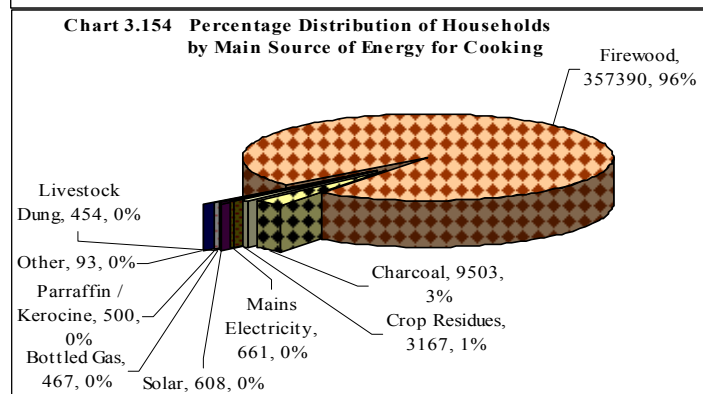
Wick lamp was the most common source of lighting energy in the region with 68 percent of the total rural households using this source, followed by hurricane lamp (26%), pressure lamp (3%), mains electricity (2%) and firewood (1%). The remaining sources of energy for lighting were insignificant. (Chart 3.153).



3.13.5 Sources of Energy for Cooking

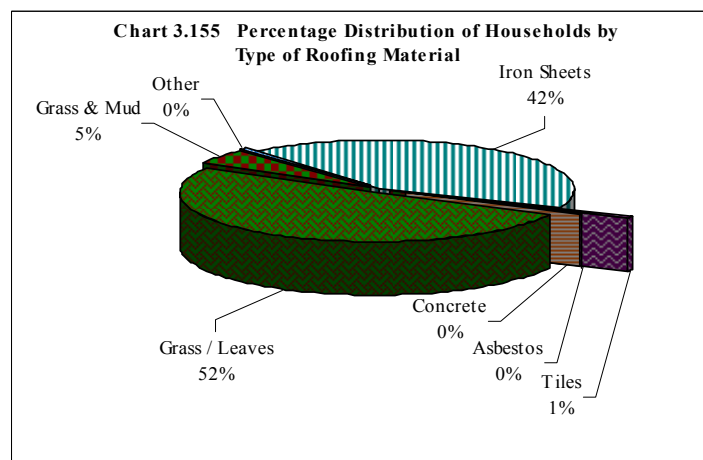
The most prevalent source of energy for cooking was firewood, which was used by 96 percent of all rural agricultural households in Mbeya region. This was followed by charcoal (3%) and crop residues (1%).

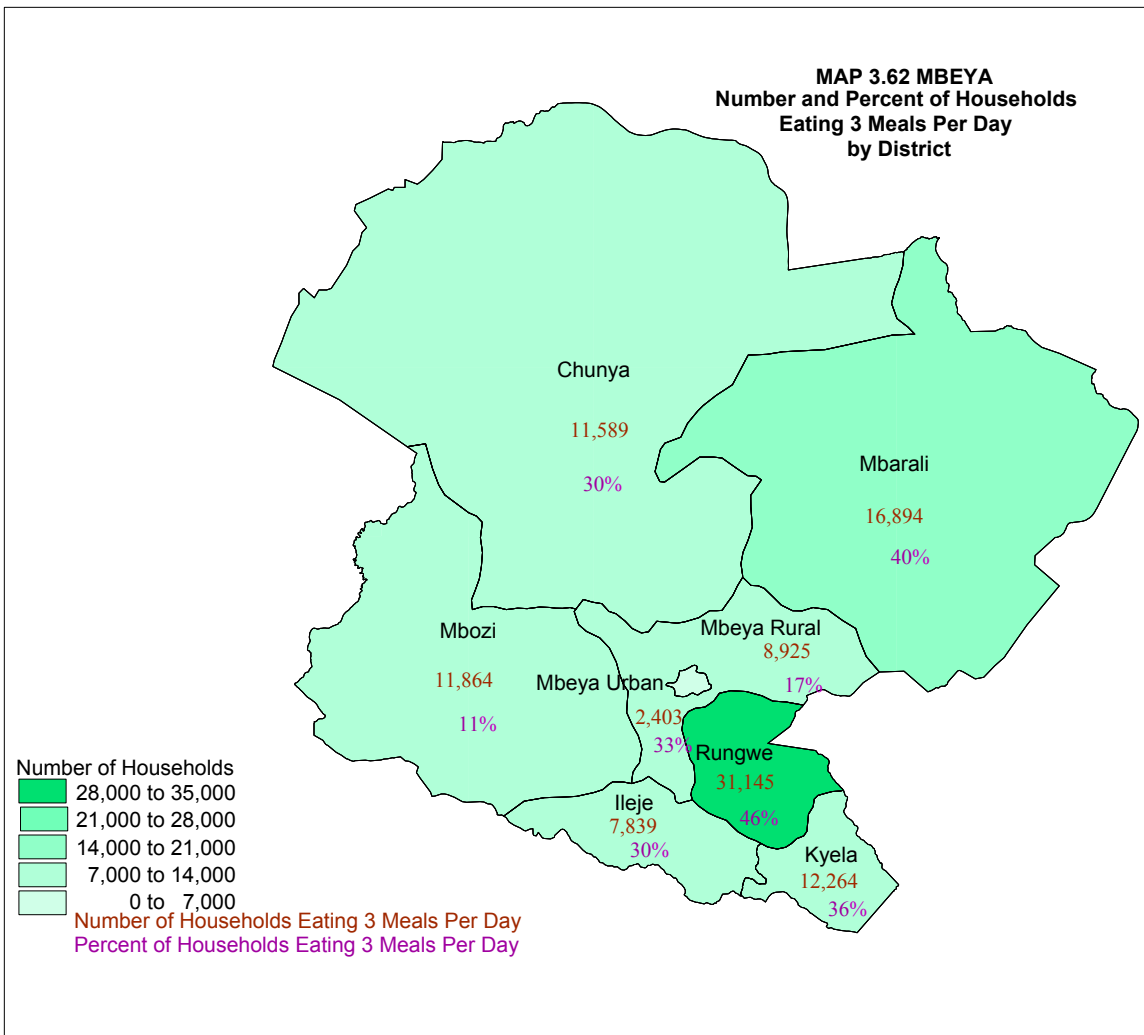
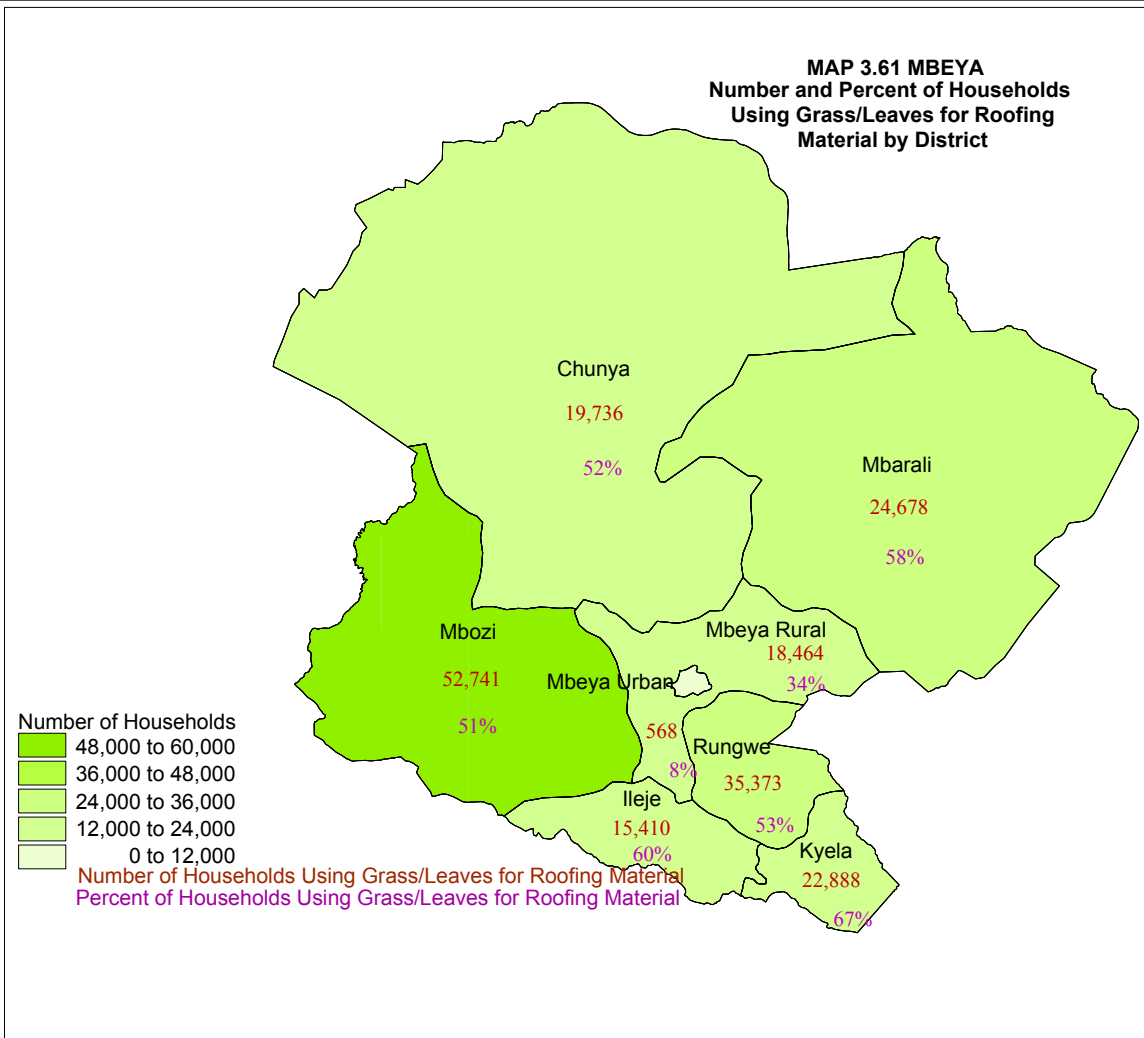
The rest of energy sources accounted for 0.7 percent. These were mains electricity and solar had (0.2%) each, paraffin/kerosene, bottled gas and livestock dung each (0.1%) and other sources of energy for cooking (0.02%). (Chart 3.154)



3.13.6 Roofing Materials

The most common roofing material for roofing of the main dwelling was grass and/or leaves and which was used by 52 percent of the rural agricultural households. This was followed by iron sheets (42%), grass/mud (5%) and tiles (1%). The remaining roofing materials were below one percent. (Chart 3.155).

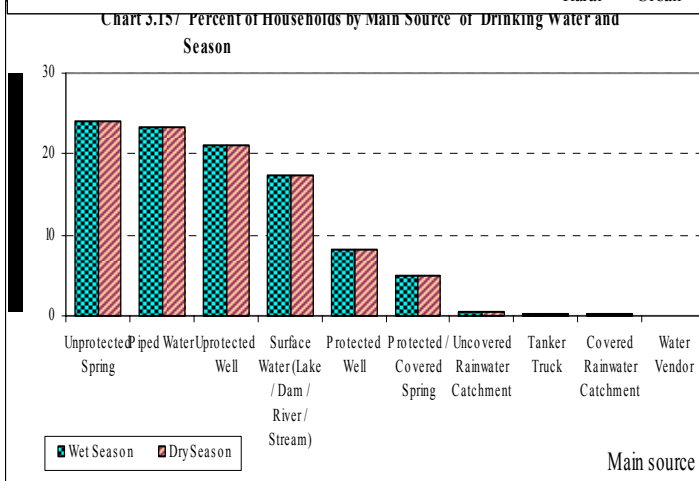
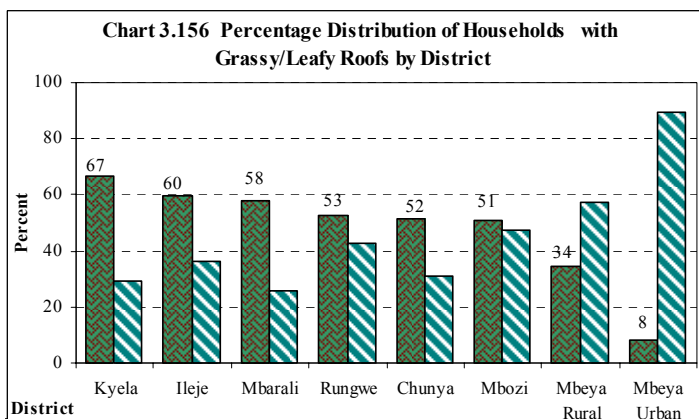




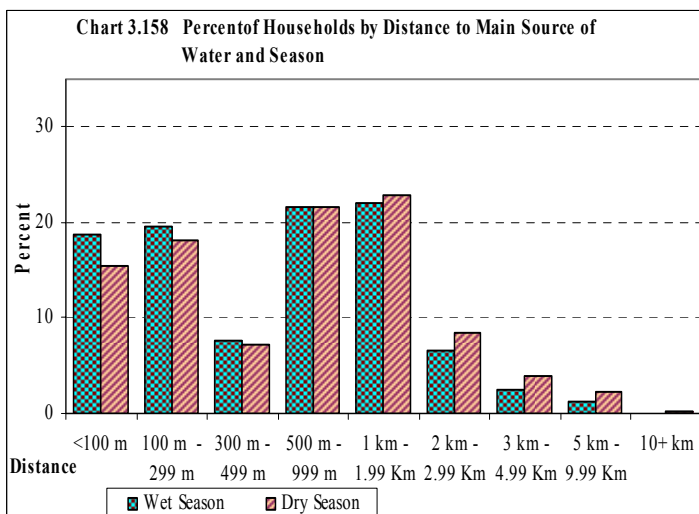
Kyela district had the highest percentage of households with grass/leaves roofing (67%) followed by Ileje (60%), Mbarali (58%), Rungwe (53%), Chunya (52%), Mbozi (51%), Mbeya Rural (34%) and Mbeya Urban (8%) (Chart 3.156 and Map 3.63).

3.13.7 Access to Drinking Water

The main source of drinking water for rural agricultural households in Mbeya region was unprotected spring (24 percent of households used unprotected wells during the wet season and 24 percent of the households during the dry seasons. This was followed by piped water (24% of households in the wet season and 23% in the dry season, unprotected wells (19% of households in the wet season and 18% in dry season, (protected wells 8% of households for each season), unprotected spring (5% of households for each season). However, the remaining sources of drinking water were of minor importance. (Chart 3.157)



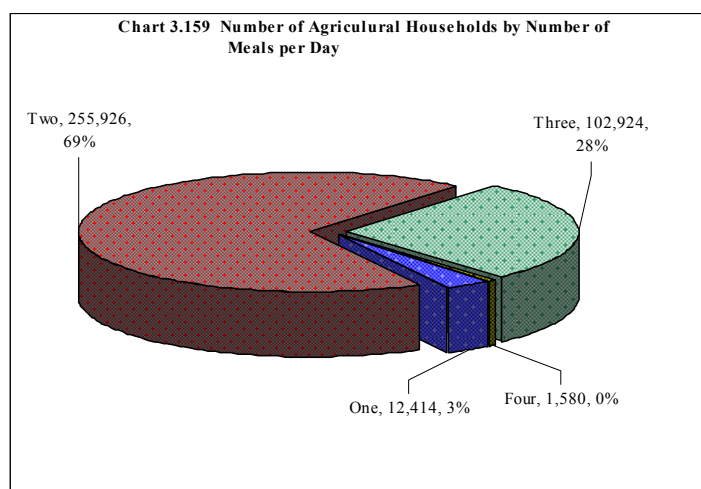
About 68 percent of the rural agricultural households in Mbeya region obtained drinking water within a distance of less than one kilometer during wet season compared to 62 percent of the households during the dry season. However, 32 percent of the agricultural households obtained drinking water from a distance of one or more kilometers during wet compared to 38 percent of households in the dry season. The most common distance from the source of drinking water was between 0.5 and 2 km (Chart 3.158).



3.14 Food Consumption Pattern

3.14.1 Number of Meals per Day

The majority of households in Mbeya region normally had 2 meals per day (69 percent of the households in the region). This was followed by 3 meals per day (28 percent) and 1 meal per day (3 percent). Only 0.4 percent of the households had 4 meals per day (Chart 3.159).



Mbeya Rural district had the largest percent of households eating one meal per day whilst

Rungwe had the highest percent of households eating three (3) meals per day. (Table 3.16 and Map 3.64).

3.14.2 Meat Consumption Frequency

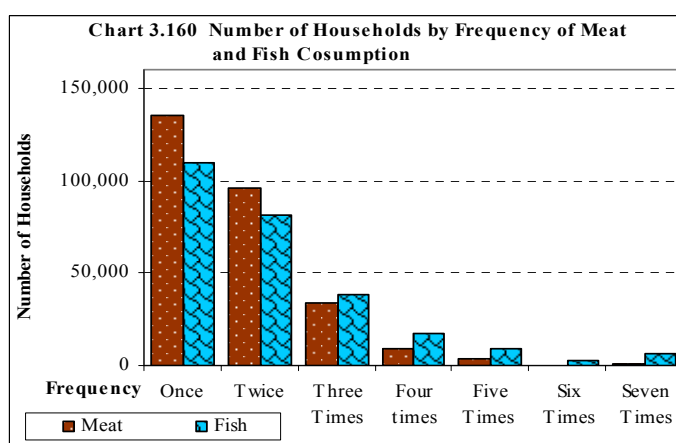
The number of agricultural households that consumed meat during the week preceding the census was 279,600 (75% of the agricultural households in Mbeya region). Out of the households that consumed meat, 135,509 households (48.5% of those who consumed meat) consumed meat only once during the respective week. This was followed by those who had meat twice during the week (34.4%), three times during the week (12.1%), four times during the week (3.1%) and five times during the week (1.4%).

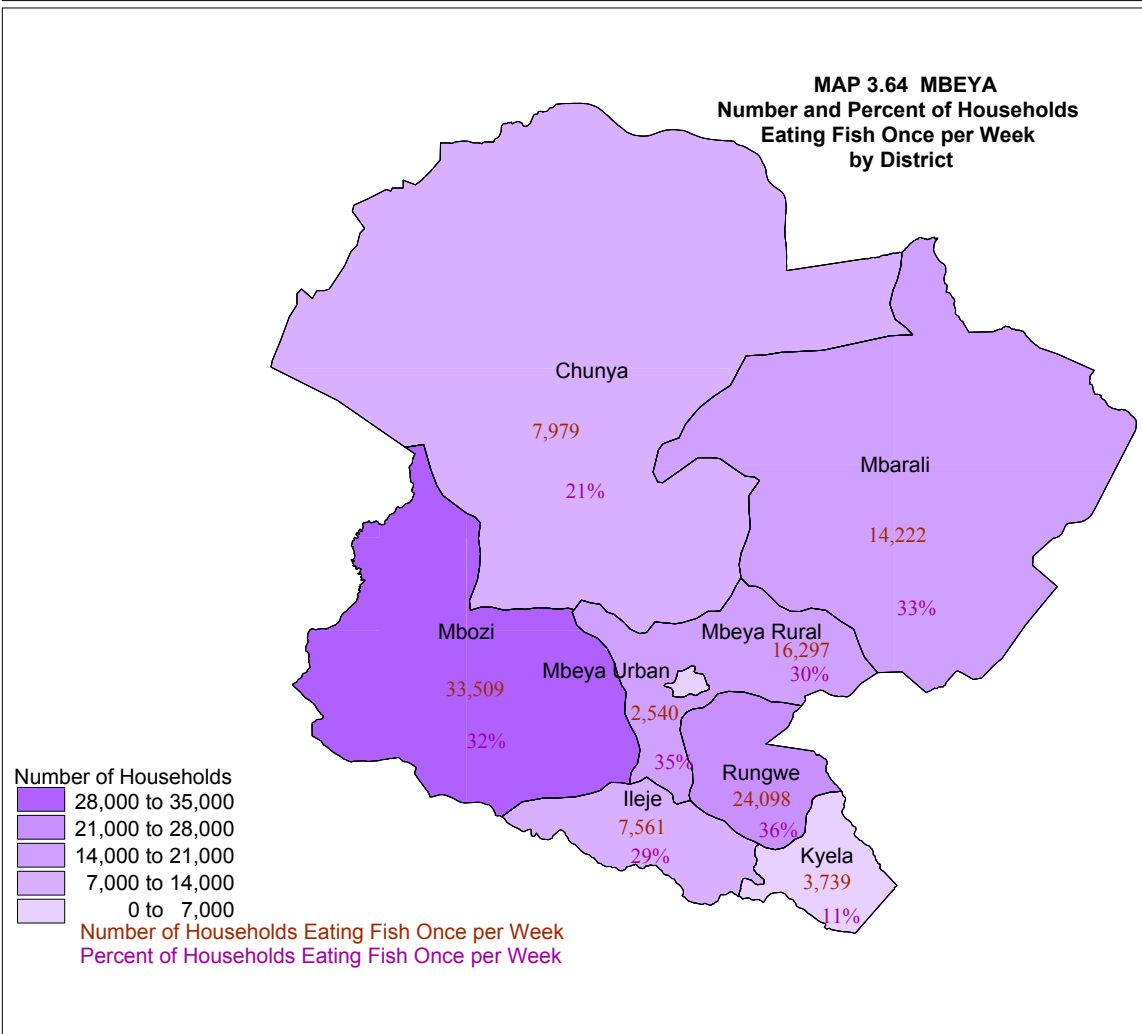
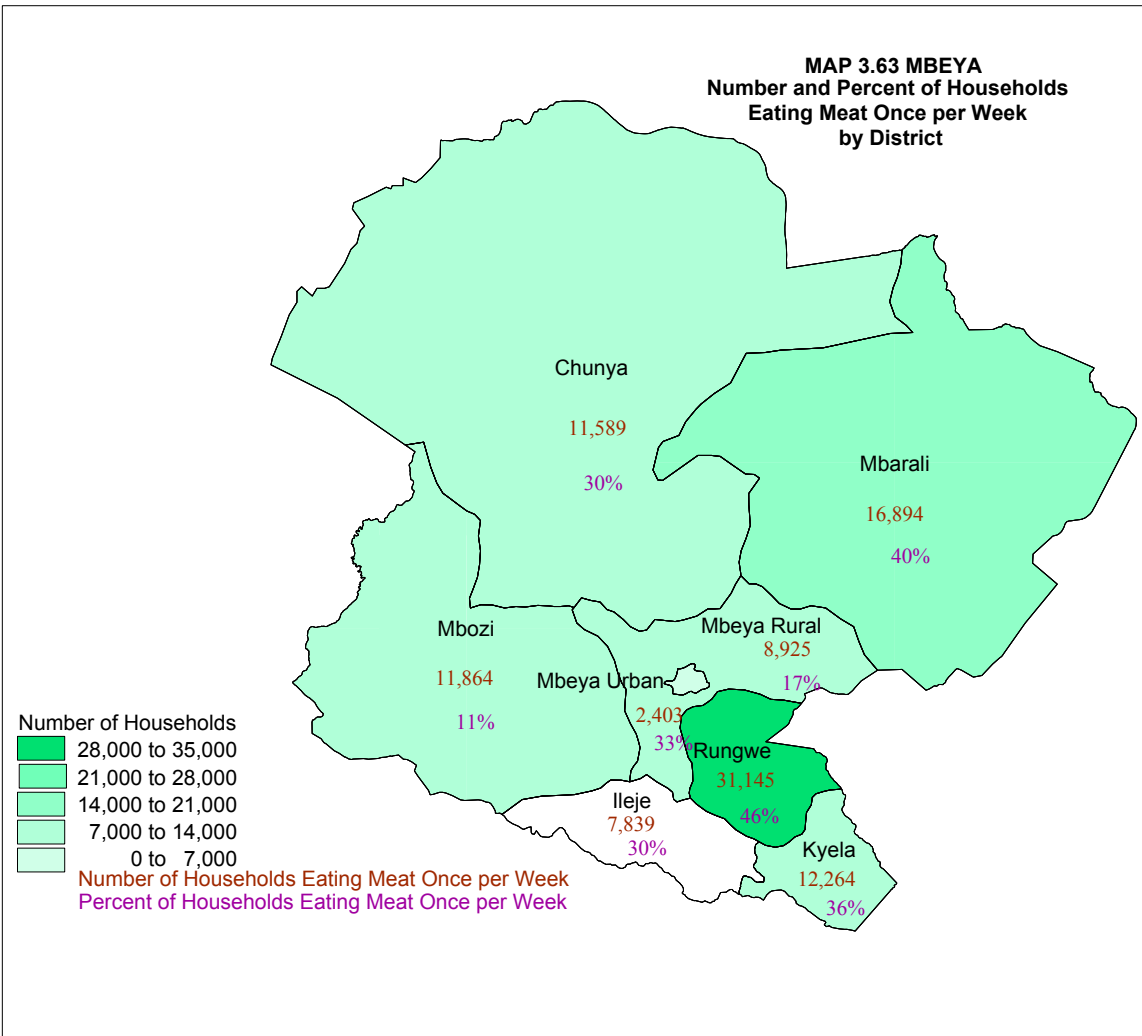
Very few households had meat sixth or seven times during the respective week being seven times during the week (0.3%) and six times during the week (0.2%).

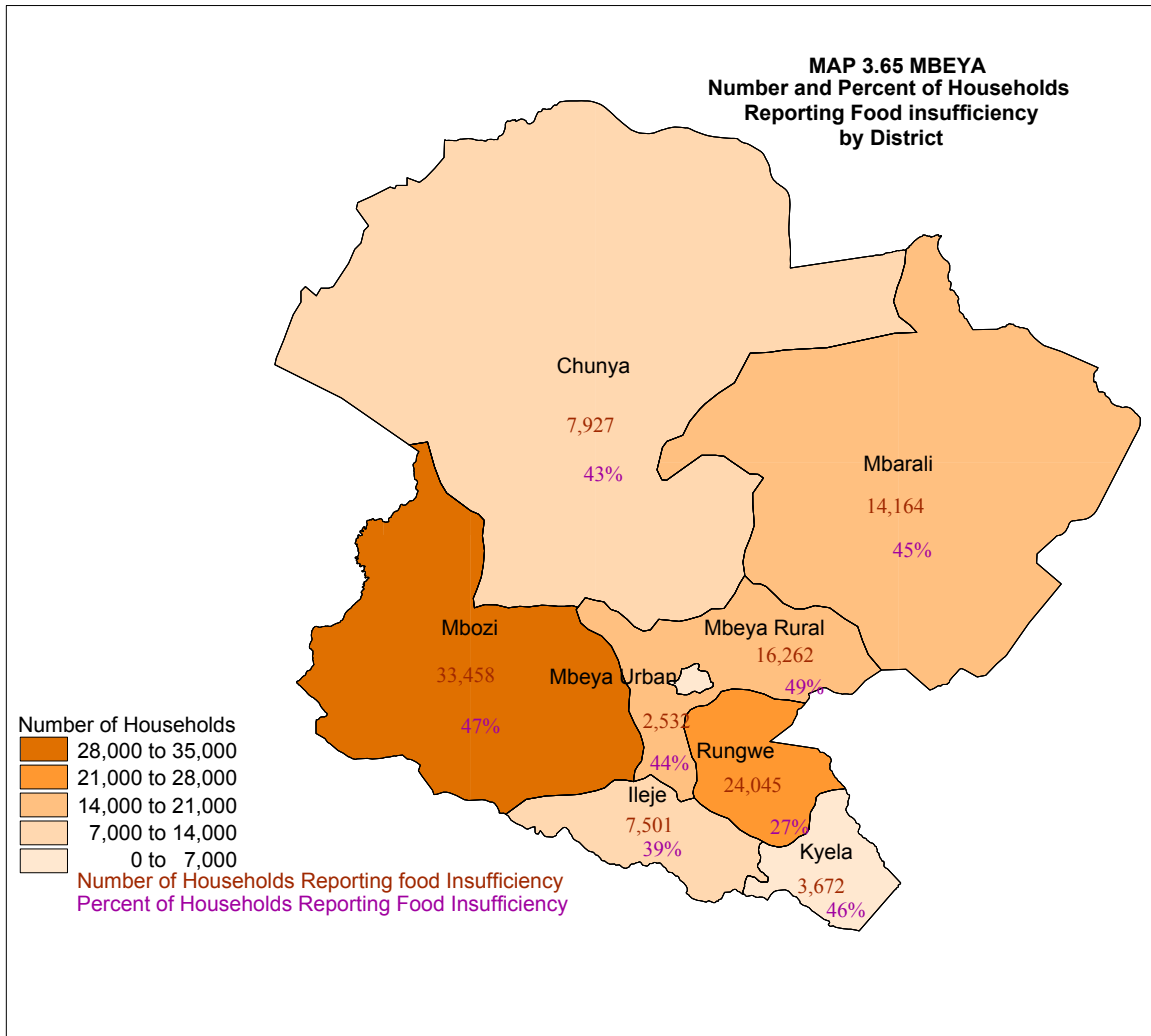
About 25 percent of the agricultural households in Mbeya region did not eat any meat during the week preceding the census (Chart 3.160 and Map 3.65).

Chart 3.18: Number of Households by Number of Meals the Household Normally Takes Per Day and

District	Number of meals per day								Total
	One	%	Two	%	Three	%	Four	%	
Chunya	1,414	3.7	24,859	65.0	11,589	30.3	399	1.0	38,262
Mbeya Rural	4,225	7.8	40,360	74.9	8,925	16.6	355	0.7	53,865
Kyela	518	1.5	21,411	62.6	12,264	35.9	0	0.0	34,192
Rungwe	347	0.5	35,831	53.2	31,145	46.3	0	0.0	67,323
Ileje	779	3.0	17,201	66.6	7,839	30.4	0	0.0	25,819
Mbozi	4,228	4.1	87,224	84.3	11,864	11.5	171	0.2	103,486
Mbarali	639	1.5	24,664	57.7	16,894	39.5	520	1.2	42,718
Mbeya Urban	265	3.7	4,376	60.9	2,403	33.5	135	1.9	7,180
Total	12,414	3.3	255,926	68.6	102,924	27.6	1,580	0.4	372,844







3.14.3 Fish Consumption Frequencies

The number of agricultural households that consumed fish during the week preceding the census was 264,954 (71% of the total agricultural households in Mbeya region) with 109,943 households (41 % of those who consumed fish) consuming fish once during the respective week. This was followed by those who had fish two times (31%), three times during the week (14%). The number of households that consumed fish four or more times during the week in Mbeya region was 35,602 (12% of the agricultural households that ate fish in the region during the respective period).

Moreover, about 107, 890 (29%) of the agricultural households in Mbeya region did not eat fish during the week preceding the census (Chart 3.160 and Map 3.66)

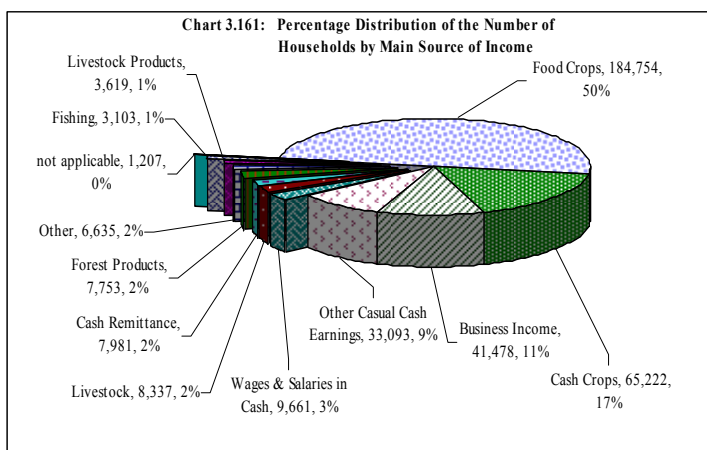
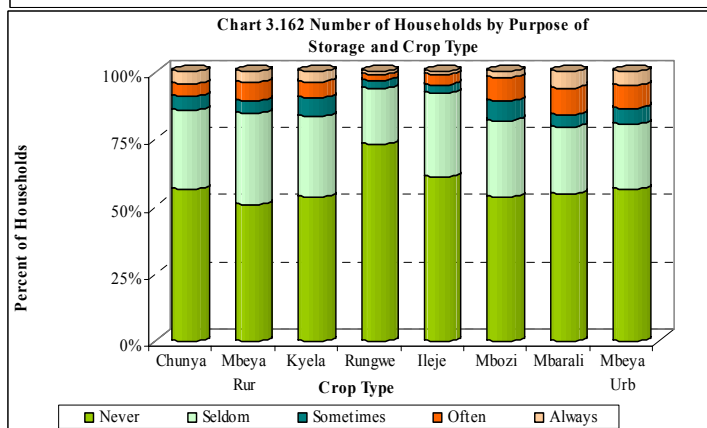
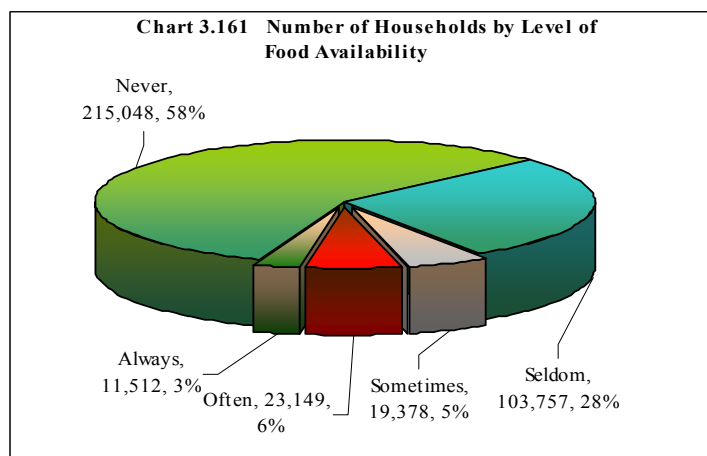
3.15 Food Security

In Mbeya region, 103,757 households (28% of the total agricultural households in the region) said they rarely experienced problems in satisfying the household food requirements.

However, 23,149 (6%) households said they often experienced problems, where's 19,378 (5%) households said they sometimes experienced problems and 11,512 (3%) households said that they always had problems in satisfying the household food requirements. On the other hand about 215,048 (58%) agricultural households said they did not experience any food sufficiency problems (Map 3.67).

3.15.1 Main Sources of Cash Income

The main cash income of the households in Mbeya region was from selling food crops (50 percent of smallholder households), followed by cash crops (17%), businesses (11%), other casual cash (9%), wages & salaries (3%), livestock (2%), forest products (2%), other (2%), livestock products (1%) and fishing (1%). (Chart 3.161).



4 MBEYA PROFILES

This section presents the status of crops and livestock production, access to natural resources and services, demography and poverty for both the region as a whole and for each district.

4.1 MBEYA Region Profile

Mbeya region has the fourth largest rural agriculture population in Tanzania (1,608,718 persons of which 780,102 are males and 828,679 females). It has second largest number of rural households involved in agriculture (372,844) in the country and 95.3 percent of the rural households and 79.5 percent of total households in the region (including urban) are involved in agriculture. The region has an average household size of 4.3 persons per household and it has the second highest percent of female headed households (25%) in the country. Crop only farming dominates and there is virtually no pastoralists in the region. The number of households keeping livestock only is small.

Land under customary law is the predominant type of land ownership, accounting for 72 percent of the total rural smallholder owned land. There is a very small amount of land under official titles. The region has an average access to their fields with about 40 percent of the rural agriculture households having their nearest field less than 100 m from the homestead. Access from the field to the nearest road is relatively poor.

Mbeya region has a comparatively moderate percent of literate rural agriculture population in the country (68%) compared to other regions and the difference between the literacy rate of males and females is fourth highest with 10.4 percent more literate males than females. It has a small percent of the rural agriculture population that have completed school and a moderate percent of household heads with no education.

The most important livelihood activity is crop farming followed by tree/forest resources and livestock keeping/rearing. Permanent crop farming is the least important livelihood activity. The percent of the rural agriculture population working full time in farming is the second highest in the country (87%). The main source of cash income for Mbeya is from the sale of food crops followed by sale of cash crops. Mbeya has the third largest number of households receiving credit mainly from family, friends and relatives (35%) and cooperatives (23%).

The region has a moderate percent of households that use modern roofing material (around 44%) and the rest is mainly with grass/leaves/mud. Almost all households in the region have toilet facilities (98.3%). Energy for lighting is mainly from wick lamps (67%) and about 26 percent of households use hurricane lamps. Most water used for drinking in Mbeya is from unprotected springs (24%) and piped water (23%), however, 21 percent of households obtain drinking water from unprotected wells.

Most rural agriculture smallholders in Mbeya are living a subsistence existence with more than 50 percent of the agriculture households using between 0 and 25 percent of their livelihood activities for non subsistence purposes. Most households eat two meals per day (69%). Only 28 percent of the households take three meals per day. The region has a low percent of households that do not eat animal protein in one week. Most households eat animal protein twice or three times a week. The region has a low percent of households that face problems in satisfying the household food requirements. It is one of the regions with relatively good access to services and infrastructure in the country. About 46 percent of the households in the region reported insufficiency of land which is high compared to other regions in the country.

The region profile describes the status of the Agriculture sector in the region and compares it with other regions in the country.

Mbeya has a land area under crop production of 575,000 hectares. It is dominated by annual crops but it has some mono and mixed permanent crops. The land area per household is below average for the country and the percentage utilisation of available land is high suggesting insufficient land. This is confirmed by a 49 percent of smallholders responding to insufficiency of land. Although Mbeya has a short rainy season it is not very important and has only a very small planted area.

Mbeya is one of the important cereal production regions in the country and it has the sixth largest planted area of maize, with one of the highest yields of maize in Tanzania which results in the region being the second highest producer. It has the fifth largest planted area of paddy and the second highest production. Moderate amounts of sorghum are grown.

Although it has the fourth largest planted areas of beans, it has the highest production in the country. Groundnuts are grown in moderate quantities and are moderately important for the production of vegetables. Tobacco is grown in relatively small quantities but has the fourth largest planted area in the country. Cassava is not important in the region.

Mbeya has the largest planted area of coffee, second for oil palm and third for bananas. It has moderate quantities of mango, oranges and some sugar cane is produced.

The region has the largest planted area of annual crops under irrigation in Tanzania and the number of households using irrigation has not changed in the last 10 years. It has the highest number of households using rivers as a source of irrigation water and it has one of the highest number of households where gravity is used as a method of obtaining irrigation water. It also has the second highest number of households using flood irrigation. Land clearing and preparation is mostly done by hand, however a third of the land clearing is done by oxen.

Although no fertiliser is applied to most of the planted area in Mbeya, it has one of the highest area of inorganic fertiliser application. A small amount of farm yard manure is used. Although small, it has a moderate to high application of pesticides compared to other regions.

Mbeya had one of the largest utilisation of maize in the country during the census year and it had the third largest quantity stored. Most storage is in sacks/open drums and locally made traditional structures. It has the second highest number of households selling crops. Most processing in the region is done by neighbours' machines and it has the highest percent of households selling processed products. The region has one lowest percent of households selling to neighbours. Instead, smallholders sell to traders at farm and farmer associations. Mbeya has the second largest number of households in the country receiving extension services.

Mbeya is the second most important region for tree planting in the country, with over 20,000,000 trees planted by smallholders. The main species are Cyprus, eucalyptus and pinus. It has the second largest number of households practicing erosion/water harvesting control, however it does not have the highest number of facilities. Most of them are erosion control and water harvesting bunds.

Mbeya has a moderate to low population of livestock, though it is characterized by having the highest pig population in the country. The region has more cattle than other livestock and most of these are indigenous. However it has moderate numbers of improved dairy and beef breeds compared to other regions. Mbeya is the fourth largest milk producing region

in the country and the farm gate price of milk is average. The region has a small to moderate population of goats and a small number of sheep.

The region has the fourth largest chicken population in the country and they are almost entirely indigenous. It also produces more eggs than any other region.

Although the region has the highest use of organic fertilizer in terms of the area of application, it has an average area of application per household which indicates a higher demand for organic fertiliser.

The rate of disease infection in the region is moderate to low. In general access to livestock infrastructure and services is moderate to high. It has a high number of households receiving extension in relation to its relatively small livestock population compared to other regions. Mbeya is the third largest fish farming region in the country.

Mbeya region has one of the largest differences in the numbers of males and females (48% males and 52% females). The region has a normal population pyramid with a slightly higher percent of female between the age 20 to 34.

The region has an active agriculture population of 843,629 of which 399,226 are males and 444,403 are females resulting in a moderate difference between the percent of total male and female active population in the region (47% and 53% respectively). The region has the 2nd highest number of households in the country compared to other regions (372,844 out of which 278,613 are male headed and 94,232 are female headed) and it has the 3rd highest percent of female headed households compared to other regions in the country. The average household size is slightly smaller than the National average (4.6 members per household for male headed households and 3.4 for female headed households), resulting in a difference in the household size of 1.2 more members in male headed households compared to female headed households.

Mbeya region has the 8th highest percent of households keeping livestock and 23 percentage point more male headed households keep livestock compared to female headed households.

There is a relatively moderate difference in the dependency ratio between male and female headed households (97 dependants for every 100 active members in male headed households and 120 dependants for every 100 active members in female headed households). The region has a moderate to high difference in sex ratio of the active agriculture population between male and female headed households in the country (105:100 in male headed households compared to 43:100 in female headed households).

Mbeya has the 14th largest difference in illiteracy rate between male and female household heads with an illiteracy rate of 17 percent of male household heads and 53 percent of female household heads. Taking the overall population of male and female members in the region there are 10 percentage points more illiterate females than males and this is 11th largest difference in the country.

Mbeya has one of the highest percent of orphans in the country and it has more orphans in female headed households compared to male headed households. No orphan headed households were detected in Mbeya.

Mbeya has around 8 percent of children with off farm income and more female headed households have children with off farm income compared to male headed households.

As with all regions, Mbeya has more land per household in male headed households than in female headed households. It has a moderate area of land per household and the difference between male and female headed households is large (1.0 ha). Mbeya region has a moderate to high percent of households reporting insufficiency of land (44%) and there is no difference between male and female headed households. Female headed households in Mbeya have around 30 percentage points more female land holders compared to male headed households and this difference is moderate compared to other regions. In Mbeya, 43 percent of female headed households have female land holders. Assuming that male household members of female headed households do not have rights to land, this would imply that 57 percent of female headed households have insecure access to land. Mbeya has a higher percent of female headed households using land under customary law compared to male headed households, whilst a higher percent of male headed households have bought land and land under certificate of ownership than female headed households.

Mbeya has a moderate to high percent of households keeping cattle with 21 percentage points more male headed households compared to female headed households. The region has a moderate to high percent of households keeping goats and male headed households have 13 percentage points more goat keepers than female headed households. Male headed households also have more goats per household compared to female headed households (6 male headed and 3 female headed). Pigs are important in Mbeya and it has the largest difference between male and female headed households, with 22 percent of male headed households keeping pigs compared to 1 percent of female headed households. Sheep are not important in Mbeya.

Compared to other regions, Mbeya has a moderate percent of households using improved seeds and 3 percentage points more male headed households than female headed households use improved seed. Compared to other regions Mbeya, has a moderate percent of households using insecticides (11%), however there is little difference between male and female headed households. The region has the 5th lowest percent of households not using fertilisers (70%). A low to moderate percent of farmers use farm yard manure (10%) and there is no difference between male and female headed households. It has the 4th highest percent of households using inorganic fertiliser, with 4 percentage points more male headed households using it compared to female headed households. The region has the 4th largest area of land under irrigation and male headed households have 4 percentage point more planted area under irrigation compared to female headed households.

Mbeya region has a high to moderate percent of households receiving extension advice and 7 percentage points more male headed households receive extension advice compared to female headed households.

In Mbeya, 93 percent of male headed households plant crops compared to 90 percent of female headed households in the long rainy season and the reason for not planting is mainly they don't plant crops (livestock only households). This is followed by illness and social problems which is more prevalent in female headed households than in male headed households. During the short rainy season 15 percent of male headed households and 19 percent of female headed households plant crops and the male reason for not planting during this season are associated with rains.

Mbeya has a the 7th highest percent of its planted area with maize and female headed households have 5 percentage points more than female headed households. The yield of maize in the region is one of the highest in the country (1.25t/ha) with

no difference between male and female headed households. A moderate number of households grow paddy in the region and there is a small difference between male and female headed households. There is no difference in yield between male and female headed households.

Mbeya has a moderate percent of households utilising secondary products and they are utilised by 7 percentage point more male headed households than female headed households.

Mbeya region has a high percent of active agriculture household members working full time on farm (85% of active members) and there is only a 3 percentage point difference between male and female members. Of the most active agriculture population (18 to 44 years of age) 86 percent of males and 91 percent of females are mainly involved in agriculture. In male headed households, 87 percent of the male members and 92 percent of female members are mainly involved in agriculture, whilst in female headed households 76 percent of males and 88 percent of females are mainly involved in agriculture. Mbeya region has a moderate percent of boys and girls involved in agriculture (12 percent of boys and girls). There are more boys and girls involved in agriculture in female headed households compared to male headed households. There are 20 percent more elderly males compared to elderly females in male headed households that are involved in agriculture in the region.

Mbeya region has a high percent of households storing crops (90% of households) compared to other regions and there is little difference between male and female headed households. There is no difference between male and female headed households in the percent of households storing for consumption, selling, storage loss and method of storage. Mbeya has a high percent of households processing crops and there is no difference between male and female headed households.

A small percent of households receive credit in Mbeya compared in other regions (6% of male headed households and 4% of female headed households). The main reason for not using credit is that they do not know how to access it, followed by not available, don't know about credit and there is no difference between male and female headed households. The main use of credit is for labour, seeds and fertiliser and there is no difference between male and female headed households. Most households receive credit from a family, friend or relative, followed by religious organisation.

The region has the 7th highest percent of households with modern roofing material in the country (41% of households in the region) and there is no difference between male and female headed households. Mbeya has the 7th highest percent of households using hurricane/pressure lamps for lighting (32% of households) and it has 11 percentage points more male headed than female headed households using this type of lighting.

Mbeya has a moderate percent of households using piped drinking water (24%) and there is no difference between male and female headed households. The region has virtually no households without toilets.

The difference in the ownership of assets (radio, iron and bicycle) between male and female households is high, in favour of male headed households, for all regions. Mbeya has a moderate percent of households with radios and bicycles and a high percent of irons. Male headed households have 31 percentage points more radios, 11 percentage points more irons and 25 percentage points more bicycles than female headed households.

There is no difference between male and female headed households in the number of meals household members eat per day in all regions. Mbeya region has a moderate percentage difference in the number of times male and female headed households eat meat compared to other regions. Male headed households eat meat 1.3 times per week whilst female headed households eat meat only 1.0 times per week. A higher percent of female headed households face food shortages compared to male headed households, however this is small compared to most other regions.

4.2 District Profile

The following district profiles highlights the characteristics of each district and compares them in relation to Population, Main crops and livestock, production and productivity, access to services and resources and levels of poverty.

3.3.5 Mbeya

Mbeya has a land area under crop production of 575,000 hectares. It is dominated by annual crops but it has some mono and mixed permanent crops. The land area per household is below average for the country and the percentage utilisation of available land is high suggesting insufficient land. This is confirmed by a 49 percent of smallholders responding to insufficiency of land. Although Mbeya has a short rainy season it is not very important and has only a very small planted area.

Mbeya is one of the important cereal production regions in the country and it has the sixth largest planted area of maize, with one of the highest yields of maize in Tanzania which results in the region being the second highest producer. It has the fifth largest planted area of paddy and the second highest production. Moderate amounts of sorghum are grown.

Although it has the fourth largest planted areas of beans, it has the highest production in the country. Groundnuts are grown in moderate quantities and the region is moderately important for the production of vegetables. Tobacco is grown in relatively small quantities but has the fourth largest planted area in the country. Cassava is not important in the region.

Mbeya has the largest planted area of coffee, second for oil palm and third for bananas. It has moderate quantities of mango, oranges and some sugar cane is produced.

The region has the largest planted area of annual crops under irrigation in Tanzania and the number of households using irrigation has not changed in the last 10 years. It has the highest number of households using rivers as a source of irrigation water and it has one of the highest number of households where gravity is used as a method of obtaining irrigation water. It also has the second highest number of households using flood irrigation. Land clearing and preparation is mostly done by hand, however a third of the land clearing is done by oxen.

Although no fertiliser is applied to most of the planted area in Mbeya, it has one of the highest area of inorganic fertiliser application. A small amount of farm yard manure is used. Although small, it has a moderate to high application of pesticides compared to other regions.

Mbeya had one of the largest utilisation of maize in the country during the census year and it had the third largest quantity stored. Most storage is in sacks/open drums and locally made traditional structures. It has the second highest number of households selling crops. Most processing in the region is done by neighbours' machines and it has the highest percent of households selling processed products. The region has one lowest percent of households selling to neighbours. Instead, smallholders sell to traders at farm and farmer associations. Mbeya has the second largest number of households in the country receiving extension services.

Mbeya is the second most important region for tree planting in the country, with over 20,000,000 trees planted by smallholders. The main species are Cyprus, eucalyptus and pinus. It has the second largest number of households practicing erosion/water harvesting control; however it does not have the highest number of facilities. Most of them are erosion control and water harvesting bunds.

4.1. Chunya

Chunya district has the sixth largest number of households in the region as well as fifth highest percent of households in the district that are involved in smallholder agriculture compared to other districts in the region. Most smallholders are involved in crop farming only, followed by crop and livestock. It has a second lowest number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Chunya district is Annual Crop Farming, followed by Off farm Income, Livestock keeping/rearing, Tree or Forest Resources, , Remittances, Permanent crop farming and Fishing/hunting & gathering. However, the district has the fourth highest percent of households with off-farm activities and second highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Chunya has the second lowest percent of female headed households (21%) and also it has one of the lowest average ages of the household head. With an average household size of 4.2 members per household it is relative lower than the average for the region. Chunya has a comparatively low literacy rate among smallholder households and this is reflected by the concomitant relatively low level of school attendance in the region. The literacy rates for the heads of household is also slightly lower than most of districts in the region.

It has the largest utilized land area per household (2.3 ha) and the allocated area was almost fully utilized indicating a high level of land pressure. The total planted area is greater than in other districts in the region due to the presence of good wet season and it has the highest planted area per household (1.1 ha).

The district is important for maize production in the region with a planted area of over 50,000ha, however the planted area per household is the second highest in the region. Paddy production is relative important with a planted area of only 1,853 hectares and the production of sorghum is very big. Chunya district did not have bulrush millet production. Cassava production is moderate accounting for 5 percent of the area planted in the region. The district did not report the production of Irish potatoes. The production of beans in Chunya was moderately in the region with a planted area of (3,791 ha). Oilseed crops are very important in Chunya as it ranks second in the region. Vegetable production is not important in the district. Tomatoes, chillies and cabbage were not recorded in the district, but it was the only district in the region which grew radish. A traditional cash crop (e.g. tobacco,) was grown in moderate to small quantities.

Permanent crops are not important in Chunya with a planted area of only 80 hectares (mostly mangoes).

As with other districts in the region, most land clearing and preparation is done by hand, however very slightly more land preparation is done by oxen compared to most other districts.

The use of inputs in the region is moderate, however district differences exist. Chunya ranked fifth in planted area with improved seed in Mbeya region. The district has moderately low planted area with fertilizers (Farm yard manure, compost and inorganic fertiliser), however most of this is farm yard manure. Compared to other districts in the region, Chunya district has a moderate level of insecticide use as well as fungicides. Also, Chunya district had the highest percentage of

households that used herbicide in the region. It has the fourth largest area with irrigation compared to other districts with 2,506 ha of irrigated land. The most common source of water for irrigation is from rivers using gravity. Flood irrigation is the most common means of application.

The most common method of crop storage is in sacks and open drums, however the proportion of households storing crops in the district is moderately high than other districts in the region. The district has the relatively low number of households selling crops and for those who did not sell, the main reason for not selling is insufficient production. Chunya is among the highest percent of households processing crops in Mbeya region and is almost all done by hand. Chunya is among the four districts with a higher percent of households selling processed crops to neighbours than other districts and also some sales were made to secondary markets and on traders at farm. Although very small, access to credit in the district is to men only and the main sources are from Co-operative and Family, Friends and Relative.

A comparatively larger number of households receive extension services in Chunya and all of this is from the government. The quality of extension services was rated between good and average by the majority of the households.

Tree farming is small in Chunya as only 5,820 planted trees were planted most of which was senna spp with some Gravellis spp and Azadritachta spp. The third lowest proportion of households with erosion control and water harvesting structures is found in Chunya district and most of these were erosion control bunds; however it has the highest number of terraces, gabions/sandbags and drainage ditches than other districts.

The district has the third largest number of cattle in the region and they are almost all indigenous. Goat production is moderate compared to other districts; however it has the third largest population of sheep in the region. It has comparatively big number of pigs in the region and a moderate number of chickens. The district one of the three that did not show the rearing of layers in the region. It is among the districts with comparatively high numbers of ducks and donkeys the district is ranked fourth in the region. Rabbits are also rarely found in the district and there was no turkeys in the district. Chunya had the second and fourth smallest number of households reporting tsetse and tick problems in the district and it had the second smallest number of households de-worming livestock. The use of draft animals in the district is moderate; there was few households who practiced fish farming in the district.

It has the best access to secondary schools, health clinics, primary and secondary markets but amongst the worst access to primary schools compared to other districts. However, it has the best access to all weather roads and moderate access to the regional capital.

Chunya district has a relatively low percent of households with no toilet facilities and it has one of the lowest percent of households owning vehicles, bicycles and tv/video, but comparative high percent owning mobile phones. It has the highest number of households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the third lowest percent of households with grass roofs with 31 percent of households having iron sheets. The most common source of drinking water is from unprotected wells. It has a comparative high percent of households having two meals and third highest percent per of households having one meal per day when compared to other districts and relative low percent with 3 meals per day. The district had the fourth highest percent of households that did not eat meat; however, it has one of the lowest percent of

households that did not eat fish during the week prior to enumeration. Most households had problems satisfying their food satisfaction.

4.2.2 Mbeya Rural

Mbeya Rural district has the fourth largest number of households in the region and the fourth highest percentage of households in the district that are involved in smallholder compared to other districts agriculture in the region. Most smallholders are involved in crop farming only, followed crop and livestock. It has the fourth highest number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households Mbeya Rural district is Annual Crop Farming, followed by off farm Income. It has the lowest percent of households with no off-farm activities and also it has the highest percent of households with more than two members with off-farm income. Compared to other districts in the region, Mbeya Rural has a highest percent of female headed households (30%) and it has one of the lowest average ages of the household head in the region. With an average household size of 4.4 members per household it is relatively high for the region.

It has a moderate utilized land area per household (1.6 ha) and 97 percent of the allocated area is currently being utilized. The district has the third largest planted area in the region, and the second largest planted area per household (0.7 ha).

The district is moderately important for maize production in the region with a planted area of 37,429 ha, and the planted area per household is also moderate for the region. Other cereals are grown in small quantities in the district, however it is the only district with a significant planted area of wheat (about 4,000 ha). The district has the one of the lowest planted area of paddy in the region with only 72 hectares. Sorghum is grown in small quantities in the district. Cassava production is low in the district. The district has a relatively large planted area of Irish potatoes (4,225 ha). The production of beans in Mbeya Rural, though small, was second highest compared to other districts in the region with a planted area of (12,167 ha). Mbeya Rural district has a small planted area of groundnuts and a small area planted per groundnut growing household of 0.35 ha.

Vegetable production is moderately important in the district. It has the largest planted area of Onion, and tomatoes, (2,536 ha, 445 ha) than other districts in the region accounting for 41 percent of the tomato planted area, 39 percent of the onion and 11 percent cabbage in the region. This was the only district in the region to grow pyrethrum (245 ha).

Compared to other districts in the region, Mbeya Rural has a small area with permanent crops of which 5,071 hectares is under coffee and 493 hectares under bananas. Other permanent crops are either not grown or are grown in very small quantities.

As with other districts in the region, most land clearing and preparation is done by hand, with virtually no tractor or oxen ploughing.

The use of inputs in the region is moderately high, and district differences exist. Mbeya Rural has the second largest planted area with improved seed in the region as well as the moderate to high proportion of households using improved seeds. The district has the second highest planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer), however most of this is farm yard manure. Compared to other districts in the region, Mbeya Rural district has

one of the highest levels of insecticide use. The use of fungicides, although small, was moderate to high compared to other districts. Application of herbicides was among the lowest.

It has a small area with irrigation compared to other districts with 3,377 ha of irrigated land. The most common source of water for irrigation is from rivers using gravity. Flood and bucket are the most common means of irrigation water application and a very small amount of sprinkler irrigation is used.

The most common method of crop storage in Mbeya Rural district is in Sacks/Open Drums, however the proportion of households storing crops in the district is relatively high. Mbeya Rural district is one of the districts with a moderate number of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. Mbeya Rural is among the districts with the highest percent of households processing crops in Mbeya region and is almost all done by neighbours machine. The district also has the third highest percent of households selling processed crops to marketing cooperatives than other districts and no sales are to farmers associations or large scale farms. Although very small, access to credit in the district is to men only and the main source is "saving and credit societies". A comparatively large number of households receive extension services in Mbeya Rural district and all of this is from the government. The quality of extension services was rated between very good and good by the majority of the households.

Tree farming is important in Mbeya Rural district with (5,494,741 planted trees) and is mostly Eucalyptus. Pinus and Cyprus. The moderate proportion of households with erosion control and water harvesting structures is found in Mbeya Rural district and is mostly erosion control bunds and water harvesting bunds, however it also has vetiver grass, number of tree belts and drainage ditches.

The district has the fifth largest number of cattle in the region and they are almost all indigenous. Goat production is comparative higher compared to other districts; however it has the second largest population of sheep in the region. It has the fourth largest number of both pigs and chicken in the region. Some ducks, rabbits and donkeys are also found in the district. A number of households reported tsetse and tick problems in Mbeya Rural district and it had the third largest number of households de-worming livestock. The district has the fifth largest number of households using draft animals in the region. A small number of households practice fish farming; however the district has the fourth largest number in the region.

It has amongst the worst access to secondary schools and primary schools, it has one of the best access to the regional capital. However, it has a moderate access to primary and secondary markets compared to other districts.

The percentages of households without toilet facility in Mbeya Rural district is 17 percent and it is among the districts with the highest percent of households owning wheel barrows, vehicles, bicycles, tv/video and mobile phones. It has the least number of households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically the majority of households use firewood for cooking. The roofing materials for most of the households in the district is iron sheets (58%) and grass/leaves (34%) and The most common source of drinking water is from surface water (lake/dam/river and stream). It is one of the districts with the highest percent of households having three meals per day. The district had the second highest percent of households that did not eat both meat and fish during the week prior to enumeration; however most households seldom had problems with food satisfaction.

4.2.3 Kyela

Kyela district has the seventh largest number of households in the region and it has the third lowest percent of households in the district involved in smallholder agriculture compared to other districts in the region. Most smallholders are involved in crop farming only, followed by both crop and livestock. It has a small number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Kyela district is Annual Crop Farming, followed by Permanent Crop Farming. However, the district has the second highest percent of households with no off-farm income activities and the second lowest percent of households with more than one member with off-farm income. Compared to other districts in the region, Kyela has a relatively high percent of female headed households (27%) and it has the highest average age of the household head in the region. With an average household size of 4.2 members per household it is below average for the region. Kyela has a highest literacy rate among smallholder households despite a moderate level of school attendance in the region.

The land area utilized per household (1.3) is slightly above the average for the region and 90 percent of the allocated area is currently being utilized which is moderate to high for the region. The district has a moderate to low planted area in the region, and the fifth largest planted area per household (0.6 ha in the wet season).

The district is comparatively important for maize production in the region with a planted area of 7,036 ha and the planted area per household is (0.4 ha) which is equal to the average for the region (0.4 ha). Paddy production is important with a planted area of 20,811 hectares and it is one of the highest in the region. Other cereals were produced in small quantities. Irish potatoes and wheat were not produced in the district. The district has moderate to low planted area of cassava accounting for 11 percent of the cassava planted area in the region. The production of beans in Kyela is relatively low compared to other districts in the region with a planted area of (418 ha). Oilseed crops are less important in Kyela with 3 percent of the groundnuts grown in the district. Vegetable production is not important in the district.

Permanent crop production in the district is of low to moderate importance compared to other districts in the region with only (9.3% of the total permanent crop planted area in region). The most prominent permanent crops in the district include cocoa (5,058 ha harvested area) and bananas (3,007 ha). Other permanent crops are either not grown or are grown in very small quantities.

As with other districts in the region, most land clearing is done by hand slashing, however it has the largest area cleared by burning and a relatively small area of bare ground before planting. Practically all Land preparation is done by hand, however a very small amount of land preparation is done by oxen and tractor.

The use of inputs in the district is amongst the lowest in the region.. Kyela has the comparative small planted area with improved seed in the Mbeya region. The district also has one of the smallest planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer), and practically all is with Inorganic fertilizer. Compared to other districts in the region, although Kyela district has the smallest area of insecticide where's it has the largest area of fungicide use and the use of herbicides is high. It has the second smallest area with irrigation in the region with (370 ha) of irrigated land. The most common source of water for irrigation is from rivers and canals and almost all water application is by using floods and hand bucket/watering canes.

The most common method of crop storage in Kyela is in Sacks/Open drums, and the proportion of households not storing crops in the district is moderate to high for the region. The district has the second lowest percent of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. Kyela district has a comparative low percent of households processing crops in the region and it is almost all done by neighbours machine; however, the district does not process crops by trader. Small quantities of processed crops are sold and very few households have access to credit.

A moderate number of households receive extension services in Kyela district and almost all of this is from the government. The quality of extension services was rated between very good and good by the majority of the households.

Tree farming though small in Kyela district (with 1,478 planted trees) and is mostly Melicia Spp and Eucalyptus Spp.. The second lowest proportion of households with water harvesting bunds is found in Kyela district and it is the only district which controls erosion by using drainage ditches

The district has a moderate number of cattle in the region and they are almost all indigenous. Goat and sheep production is low compared to other districts. It has the fifth largest number of pigs in the region and a comparative low number of chickens, all of which are indigenous. The district has the third lowest number of ducks, but no turkeys and a small number of rabbits but largest number of donkeys were found in the district. Although a small number of households reported tsetse problem but, relative high number of households reported tick problems in Kyela district. A comparative high amount of de-worming of livestock is practiced in the district draft animals are also used. Fish farming was not practiced by households in the district (one of the two districts where fish farming was not carried out in the region).

It has amongst the best access to secondary schools and feeder roads but also relative access to primary schools, health clinics, and primary markets compared to other districts. However, it has one of the best accesses to tertiary markets and the regional capital.

The percentage of households without toilet facility in Kyela district is below the average of the region; however it has the fourth highest percent of households with toilet facilities. It has the relative low percent of households owning land line phones and vehicles and the lowest percent owing Tv/video. It has also the lowest number of households using mains electricity in the region and the most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. Although, the district has a highest percent of households with grass roofs (67%) 29 percent of households are having iron sheet roofing. The most common source of drinking water is from piped water. Sixteen four percent of the households in the district reported having one or two meals per day and virtually there were some household s that reported having more than three meals per day. The district had the lowest percent of households that did not eat meat or fish during the week prior to enumeration and most households seldom had problems with food satisfaction.

4.2.4 Rungwe

Rungwe district has the second highest number of households in the region and it has second highest percent of households in the district that are involved in smallholder agriculture compared to other districts in the region. Most smallholders are involved in crop farming only, followed by crop and livestock. It has a relative large number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Rungwe district is annual crop farming followed by Permanent Crop Farming. It has the second highest percent of households with no off-farm activities and the lowest percent of households with more than one member with off-farm income. Compared to other districts in the region, Rungwe district has a relatively high percent of female headed households (28%) and it has one of the highest average age of the household head. With an average household size of 4.0 members per household it is slightly below average for the region. Rungwe district has a comparatively high literacy rate among smallholder households and this is reflected by the concomitant relatively high level of school attendance in the region.

It has the second smallest utilized land area per household (1.3 ha) and 100 percent of the allocated land area was utilized. The total planted area was moderate to high in the region however it has the fourth lowest planted area per household (0.6ha in the wet season and 0.4ha in the dry season).

Maize production is the most important crop in the district with a planted area of (28,982 ha.), however the planted area per household is among the lowest in the region. Paddy production is also important with a planted area of 3,364 hectares and the production of sorghum was not recorded in the district.

Cassava, beans and Irish potato production are moderate in the district. Irish potatoes have the second highest planted area in the region(2,014 ha). Beans are important in the district and was third in the region with the planted area of (11,246 ha). Oilseed crops, vegetables and cash crops are not important in the district.

Compared to other districts in the region, Rungwe district has the largest planted area with permanent crops (55.4% of total permanent crop planted area) which is dominated by banana (43,366 ha), coffee (19,761 ha), cocoa (7,643 ha), and mangoes (2,466 ha). A small area of avocado, plums and are grown. Apart from a minor amount of sugarcane no other permanent crops are grown.

As with other districts in the region, most land clearing is done by hand, however it has a substantial amount of land preparation done by Tractor and virtually none by oxen plough.

The use of inputs in the region is relative small, however district differences exist. Rungwe district has the third smallest planted area with improved seed; however it has also the fourth highest planted area per household in the region. The district also has the third smallest percent of planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer), and most of this is with inorganic fertilizer. Compared to other districts in the region, Rungwe district has relative low area planted with insecticide. The percent of planted area with fungicides is amongst the lowest in the region and also is one the lowest for herbicides. It has one of the smallest areas of irrigation with 784 ha. The most common source of water for irrigation is from rivers using gravity and hand buckets/Bucket. Floods and Watering cans are the most common means of irrigation water application.

The most common method of crop storage is in sacks and /or open drums; however the proportion of households not storing crops in Rungwe district is amongst the highest in the region. The number of households selling crops in the district is among the largest in the region, however for those who did not sell, the main reason for not selling is insufficient production. The relative big percent of households processing crops in the region is found in Rungwe district and processing is mostly done by neighbours machine. The district has the largest number of households processing crops on farm by machine. It also has the largest number of households processing crops on farm by hand. Most households that sell

crops sell to local markets or trade stores, traders on farm and neighbours no sales are to large scale farms. Access to credit in the district is very small.

A relative large number of households receive extension services in Rungwe district and almost all of this is from the government. The quality of extension services was rated between very good and good by the majority of the households.

Tree farming is equally important in Rungwe district (with 4,807,695 planted trees) and most of them are eucalyptus spp, Cyprus spp, Pinnus spp and some Casurina spp, It has the second largest number of households with erosion control bunds in the region.

Rungwe district has the fourth smallest number of cattle in the region and most of them are indigenous. It is among the districts with the small number of goats in the region, however the district has the relative high density (97 head per km²) Rungwe has one of the largest number of pigs and chickens, It has relatively low number of sheep, however it has the second largest number of improved chickens (both layers and broilers) in the region. The district has a comparatively high number of ducks and turkeys, together with the highest number of donkeys in the region. A moderate to high number of households reported Tsetse and tick problems in Rungwe district and it had one of the biggest numbers of households deworming livestock. The use of draft animals in the district is very small and largest number of households practicing fish farming in the region.

It has moderate access to feeder roads, primary markets and secondary markets compared to other districts in the region. However, it has the worst access to the regional capital, tarmac roads, and tertiary markets

Rungwe district has one of the lowest numbers of households with no toilet facilities. It has one of the lowest percent of households owning television/video, vehicles, radio, mobile phones, land line, irons, bicycles and wheel barrows. It has the third largest number of households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the fourth largest percent of households with grass roofs with 43 percent of households having iron sheets. The most common source of drinking water is unprotected spring wells, and it has the lowest percent of households having two or one meal per day compared to other districts and the highest percent with 3 meals per day. The district had one of the lowest percent of households that did not eat meat during the week prior to enumeration but it has a relative low percent of households that did not eat fish. Most households seldom had problems with food satisfaction.

4.2.5 Ileje

Ileje district has the lowest number of households in the region and it has the highest percent of households in the district involved in agriculture compared to other districts in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. It has a relative small number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Ileje district is Annual Crop Farming followed by Permanent Crop Farming, Livestock Keeping/Herding, Off-Farm Income, Tree/Forest Resources, Remittances, and Fishing/Hunting and Gathering. The district has the third highest percent of households with no off-farm activities and the third lowest percent of households with more than one member with off-farm income. Compared to other districts in the region, Ileje has a moderate percent of female headed households (28%) and it has one of the moderate average age of the

household head. With an average household size of 4.2 members per household it is slightly lower than the regional average. Ileje has the third highest literacy rate among smallholder households in the region and this is reflected by the concomitant relatively high level of school attendance. The rate of “Never Attended” is among the lowest in the region.

It has a moderate utilized land area per household (1.6 ha) which is equal to the regional average. Around 95 percent of the allocated land is utilized. The district has the second smallest planted area in the region, however it has the second largest planted area per household (1.6 ha) in the wet season.

Although the planted area of maize is small compared to other districts it is the most important crop in the district (14,551 ha), however the planted area per household is moderate compared to other districts in the region. Paddy production is relatively unimportant with a planted area of only 731 hectares and the production of sorghum is very low. Wheat and finger millet are also grown in the district, but in small quantities. Both Irish potatoes, Sweet potatoes and cassava are grown in the region in moderate to small amounts. The district has among the lowest percent of area planted with Irish potatoes with 279 hectares. The production of beans in Ileje district is the fourth largest in the region with a planted area of 5,535 hectares. Vegetable production is not very important in the district and the district has the second smallest planted area per tomato growing household. Traditional cash crops (e.g. tobacco and cotton) are not grown in the district.

Compared to other districts in the region, Ileje has one of the three districts with smallest planted area with permanent crops which are both planted in mixed area of (30,564 ha) and are dominated by banana, coffee, cocoa and mangoes. However, other permanent crops are either not grown or are grown in very small quantities.

As with other districts in the region, most land clearing is done by hand slashing, however “no land clearing” is relatively high indicating bare land before cultivation. Practically all Land preparation is done by tractor ploughing.

The use of inputs in the region is comparative large, however district differences exist. Ileje has one of the smallest planted areas with improved seed in Mbeya region. The district is among those with largest planted area with fertilizers and most of this is with farm yard manure, inorganic fertilizer and compost. Compared to other districts in the region, Ileje district has the fourth lowest percent of its planted area with insecticides in the region. The use of fungicides was one of the lowest in the region. Also it has the fourth smallest planted area with irrigation in the region with only 1,237hectares of irrigated land. Rivers, canals, wells, and pipe water is used as the source of irrigation water and hand bucket was mainly used. Buckets/Water cans are the most common means of irrigation water application and a very small amount of flood irrigation is used.

The most common method of crop storage is in sacks or in open drums; In Locally Made Traditional Structures (Cribs); however the proportion of households not storing crops in the district is the lowest in the region. The district has one of the smallest numbers of households selling crops and the main reason for not selling is insufficient production. Ileje district has the highest percent of households processing crops on farm by hand and a small percent of households selling processed crops mainly to neighbours and trader at farm. No sales were made to neither local market trade stores nor large scale farms. Access to credit is nonexistent in the district, it has one of the lowest proportions of households that accessed to credit in the region and for those who did not use credit it was because of unavailability of the agricultural credits.

A relatively low number of households receive extension services in Ileje district and all of this is from the government. The quality of extension services was rated between good and very good by most of the households.

Tree farming is equally important in Ileje (with 4,664,432 planted trees) and is mostly with Cyprus, Eucalyptus, Senna spp Pinus, Gravellia spp and some Melliola spp, Azadirachta Spp and Albizia spp. The third largest number of erosion control and water harvesting structures is found in Ileje district and they are mainly Erosion Control Bunds and Water Harvesting Bunds. Other minor erosion control includes tree belts, drainage ditches and terraces.

The district has one of the lowest number of cattle in the region and they are mostly all indigenous. Also it is among the districts with smallest number of sheep and lowest production of both goat but a relatively high number of pigs in the region. It has a relative low number of chickens. Small numbers of turkeys, donkeys and rabbits. A moderate number of ducks are kept in the district. A relatively large number of households reported tick problems and very few had Tsetse fly problems in the district. A moderate number of households de-worm livestock. The use of draft animals in the district is non-existent and some fish farming is practiced in the district.

It is amongst the districts with the best access to regional capital, tertiary market, feeder roads, tarmac roads, secondary schools, primary schools, primary and secondary markets and all weather roads; however it has one of the worst accesses to health clinics.

Ileje district has the lowest percent of households with no toilet facilities. The district has one of the smallest percent of households owning landline phones. A very small number of households reported ownership of vehicles, mobile phones, wheel barrows, bicycles, iron and televisions/videos. It has the sixth smallest number of households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has one of the highest percent of households with grass roofs (60 percent), and 36 percent of households having iron sheets. The most common source of drinking water is from unprotected spring wells and surface water (Lake/Dam/River/Stream). It has a moderate percent of households having two or one meal per day compared to other districts and is among the districts with a relative high percent of households with 3 meals per day. The district had the fourth highest percent of households that did not eat meat during the week prior to enumeration; however it is among the districts with a low percent of households that did not eat fish during the week. Most households in the district seldom or never had problems with food satisfaction.

4.2.6: Mbozi

Mbozi district has the highest number of households in the region and it has the highest number of households involved in smallholder agriculture in the region. However in terms of percent of households involved in agriculture in the district, it is third highest. Most smallholders are involved in crop farming only, followed by crop and livestock farming. It has a relative large number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Mbozi district is annual crop farming followed by tree forest resources, then off-farm income. It has the second lowest percent of households with no off-farm activities and had fourth lowest percent of households with more than one member with off-farm income. Compared to other districts in the region, Mbozi district has a relatively low percent of female headed households (22%) and it has the lowest average age of the household head. With an average household size of 4.5 members per household it is slightly high the average for the region. Mbozi district has a comparatively low literacy rate among smallholder households and this is reflected by the concomitant relatively high level of school attendance in the region.

It has the second largest utilized land area per household (1.8 ha) and 94 percent of the allocated land area is utilized.

Mbozi like any other district is important for maize production in the region with a planted area of (67,736 ha,) and the planted area of maize per household is among the highest in the region. Paddy production is also moderately important with a planted area of only 6,346 hectares and the production of sorghum is highest in the region (4,200 ha).

Cassava, and beans are comparatively important in the region with both having the largest planted area compared to other districts in the region. Oilseed crops were important in the district with the district having the largest planted area of 8,117 hectares for groundnuts. Vegetables were not very important in the district however some tomatoes and onions are grown. Traditional cash crops (e.g. tobacco and cotton) are not grown in the district.

Compared to other districts in the region, Mbozi district has one of the largest planted area with permanent crops (23% of total permanent crop planted area) which is dominated by coffee (31,692 ha), banana (1,259ha) and mangoes (477 ha). Apart from a minor amount of sugarcane no other permanent crop is grown.

As with other districts in the region, most land clearing and preparation is done by hand, however around 10 percent of land preparation is done using oxen and ploughs.

The use of inputs in the region is relative large, however district differences exist. Mbozi district has the fifth smallest planted area with improved seed; however it has also the third highest planted area per household in the region. The district also has the fourth smallest percent of planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer), and most of this is with inorganic fertilizer. Compared to other districts in the region, Mbozi district has relative high area planted with insecticide but has the highest percent of the total planted area in the region. The percent of planted area with fungicides is amongst the highest in the region and is one of the highest for herbicides. It has one of the highest areas of irrigation 14,092 ha. The most common sources of water for irrigation is from rivers, canals, wells and dams using gravity, hand buckets and water pumps. Buckets, watering cans are the most common means of irrigation water application.

The most common methods of crop storage is in sacks / open drum and locally made traditional cribs; however the proportion of households not storing crops in Mbozi district is the lowest in the region. The number of households selling crops in the district is the biggest in the region, however for those who did not sell, the main reason for not selling is insufficient production. The biggest percent of households processing crops in the region is found in Mbozi district and processing is mostly done by neighbours machine and on farm by hand. The district has the second largest number of households processing crops on farm by machine. It also has the third largest number of households processing crops on farm by hand. Most households that sell crops sell to neighbours, traders on farm, farmer's associations and marketing co-operatives. Access to credit in the district is very small.

A very large number of households receive extension services in Mbozi district and almost all of this is from the government. The quality of extension services was rated between very good and good by the majority of the households.

Tree farming is equally important in Mbozi district (with 5,253,051 planted trees) and most of them are Cyprus Spp Pinnus Spp, eucalyptus Spp, Senna spp, Melicia spp, Gravellis spp and some Azadritachta spp The largest proportion of households in Mbozi district use erosion control bunds for erosion control..

Mbozi district has the second largest number of cattle in the region and most of them are indigenous. The district also has the largest number of goats in the region, however the district has the relative high density (68 head per km²). Mbozi district also has the largest number of pigs and chickens in the region. It has the largest number of improved chickens (both layers and broilers) in the region. Comparatively large numbers of ducks, rabbits, turkeys and donkeys are found in the district. A moderate to high number of households reported Tsetse and tick problems in Mbozi district and it had one of the smallest numbers of households de-worming livestock. The use of draft animals in the district is high and it has one of the highest number of households practicing fish farming in the region.

It is amongst the districts with the best access to health clinics, secondary schools, primary, secondary and tertiary markets, tarmac roads, all weather roads, and hospitals, regional capital and primary schools, compared to other districts. However, it has the worst access to, feeder roads.

Mbozi district has the highest number of households with no toilet facilities. The district has one of the lowest percent of households owning mobile phones, television/video, wheel barrows, vehicles, land line and radio; however, it has the third highest percent of households with both bicycles and irons. It has the largest number of households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the sixth largest percent of households with grass roofs (51 percent) with 48 percent of the households having iron sheets. The most common sources of drinking water is unprotected wells, unprotected spring, surface water (lake / dam / river / stream) and protected wells. I

It has the third highest percent of households having two or one meal per day compared to other districts and the lowest percent with 3 meals per day. The district had the third lowest percent of households that did not eat meat during the week prior to enumeration however it had the highest percent households that did not eat fish. Most households seldom had problems with food satisfaction.

4.2.7: Mbarali

Mbarali district has the fifth largest number of households in the region; it however has the second highest percent of households in the district that are involved in smallholder agriculture compared to other districts in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production. It has one of the smallest numbers of livestock only households and no pastoralists.

The most important livelihood activity for smallholder households in Mbarali district is Annual Crop Farming, followed by off farm Income/ tree/Forest Resources / Fishing/hunting and Gathering /Livestock keeping/herding/ Remittances and. Permanent crop farming. However, the district has a moderate to low percent of households with no off-farm income activities and a moderate to high percent of households with more than one member with off-farm income compared to other districts in the region. Mbarali has the fourth lowest percent of female headed households (24%) in the region and it has the third highest average age of the household head. With an average household size of 4.3 members per household it is equal to the average of the region. Mbarali has a moderately high literacy rate among smallholder households in and this is reflected by the relatively high level of never attended school in the region. The literacy rate for the heads of household is among the lowest in the region.

It has the third largest utilized land area per household (1.8 ha) in the region. The total planted area is moderate compared to other districts in the region due to the presence of good wet season,

The district is moderately important for maize production in the region with a planted area of over 32,000 hectares and the planted area per maize growing household is the one of the largest in the region. The district is very important for the paddy production with 21,546 hectares and is the highest in the region. Other cereals are not important in the region. Root and tubers, pulses and oilseeds are not important in the district. Vegetable production though small is relatively important in the district compared to other districts in the region. Vegetables grown include tomatoes, spinach and pumpkins, other vegetables are grown in small quantities. No tobacco production was recorded in the district.

Compared to other districts in the region, Mbarali has the fourth largest planted area with permanent crops, however it only accounts for 4 percent of the total planted area with permanent crops in the region. The most important permanent crops in the district are mangoes (4,522 ha) and banana (1,926 ha). Other permanent crops are either not grown or are grown in very small quantities.

Most land clearing is done by hand slashing, however it has a moderate planted area with “no land clearing” indicating the presence of a large area of bare land before cultivation. Most land preparation is done by oxen (83%) and the remaining is predominantly by hand.

The use of inputs in the region is low, however district differences exist with Mbarali district being one of the lowest in the region. However, it has the largest area of irrigation (21,154 ha) and the most common sources of water for irrigation is from rivers and canals using gravity and hand buckets

The most common methods of crop storage are in sacks or open drums and local made modern structures (cribs); however the proportion of households’ not storing crops in the district is the highest when compared to other districts in Iringa region. The district has a moderate number of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. Mbarali is among the districts in Mbeya Region with a low percent of households processing crops and is mostly done using neighbours machines. The district also has a small percent of households selling processed crops only to neighbours and farmers associations. Access to credit is in existent in the district.

A very low number of households receive extension services in Mbarali and mostly from the government. The quality of extension services was rated between good and very good by the majority of the households.

Tree farming though is not important in Mbarali with only 11,078 planted trees (mostly senna Spp. Eucalyptus Spp, and terminalia spp). A small proportion of households with erosion control and water harvesting structures is found in Mbarali district and is mostly erosion control bunds, however it also has a number of water harvesting bunds, drainage ditches and tree belts.

The district has the highest number of cattle in the region and they are all indigenous. Goat production is also high compared to most other districts and it has the largest population of sheep compared to other districts in the region. Pig and chicken production are unimportant in the region and no improved chickens were kept. Mbarali district had the largest numbers of rabbits (66,871). A small number of donkeys and no turkeys were recorded in the district. The moderate to low number of households reporting tick problem was from Mbarali district, however it has the third in the district in the region

reporting tsetse problem, but, the smallest number of households de-worming livestock. The use of draft animals is third largest district in the region, and no fish farming found in the district.

It is amongst the districts with the best access to primary schools, tertiary, primary and secondary markets, secondary, and feeder roads, fair access to all weather roads, health clinics, tarmac roads, however it has one of the worst access to the regional capital.

Mbarali district has the highest percent of households with no toilet facilities and it has one of the moderate high percent of households owning vehicles, mobile phones, televisions/video and landline phone. It has also access to mains electricity. The most common sources of energy for lighting is the wick lamp and hurricane lamp and most of the households use firewood for cooking. The district has a third highest percent of households with grass roofs with 58 percent of households having iron sheet roofing (26%). The most common source of drinking water is from piped water, unprotected wells and surface water/lake/dam/river/stream. It has the seventh highest percent of households having two or one meal per day compared to other districts and the second highest percent with 3 meals per day. The district had the moderate percent of households that did not eat meat during the week prior to enumeration; however it has the fifth highest percent of households that did not eat fish during the respective period. Most households seldom had problems with food satisfaction.

4.2.8: Mbeya Urban

Mbeya Urban district has the smallest number of households in the region and it has the smallest percent of households that are involved in smallholder agriculture in the district compared to other districts in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production. It has a very small number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Mbeya Urban is Annual Crop Farming, followed by off farm Income, Tree/Forest resources, Livestock keeping/herding, Permanent Crop Farming, Remittances and Fishing/Hunting and gathering. The district has third lowest percent of households with no off-farm activities however it has moderate to high percent of households with more than one member with off-farm income. Compared to other districts in the region, Mbeya Urban has the lowest percent of female headed households (19%) and it has one of the lowest average ages of the household head. With an average household size of 4.9 members per household it is relative large for the region. The literacy rate among smallholder households in Mbeya Urban second high compared to other districts in the region and associated with this is a number of household members who have never attended school.

It has the smallest utilized land area per household (0.9 ha) in Mbeya region and almost all allocated land is used. The total planted area is the smallest in the region. However the planted area per household in the wet season the district had the second lowest in the region. The planted area per household is fourth highest (1.6ha per household) due to planting crops during both the short and long rainy seasons.

Mbeya Urban district is least important for maize production in the region with a planted area of only 3,400 ha, and one of the smallest planted areas per household in the region. The production of paddy, sorghum and finger millet production was not recorded in the district.

Small quantities of Cassava was produce in the district accounting for 0.1 percent of the total cassava planted area in the region. Irish potato production was also small in the district with a planted area of 458 hectares. Beans production had a

planted area of 862 hectares and was third lowest in the region. Oilseed crops are not important in Mbeya Urban. Vegetable production is not important in the district; however small quantities of tomatoes are grown. Traditional cash crops (e.g. tobacco and cotton) are not grown in the district.

Mbeya Urban is not important for permanent crops, with only 265 hectares of coffee and 255 hectares of bananas grown in the district.

Most land clearing is done by hand slashing; however land clearing was done by hand on all Planted Area. It has also the smallest area of bush clearance in the region. Most land preparation is done by hand, however it has the lowest planted area cultivated by oxen. A very small amount of land preparation is done by tractor.

The use of inputs in the region is comparative low, however district differences exist. Mbeya Urban has a lowest planted area with improved seed in Mbeya region. The use of fertilizer is very small and is mostly inorganic fertilizer and farm yard manure. Compost manure was used in small quantity. The district has the smallest area of land under irrigation however it has the fourth highest percent of its planted area under irrigation compared to other districts in the region. The most common source of water for irrigation is from canals and rivers using gravity and hand buckets. Buckets/Watering cans are the only means of irrigation water application in the district.

The most common method of crop storage is in sacks/open drums; however the proportion of households not storing crops in the district is moderate to low when compared to other districts in Iringa region. The district has a moderate to low number of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. Mbeya rural is among the districts in Mbeya region with a low percent of households processing crops and it is mostly done using neighbours machines. The district also has a small percent of households selling processed crops only to neighbours. Access to credit is existent in the district.

A comparatively percent of households receive extension services in Mbeya Urban and mostly from the government. The quality of extension services was rated between good and very good by the majority of the households.

Tree farming though small is important in terms number of smallholders in the district. About 3,630 planted trees were recorded in the district and this is dominated by Eucalyptus. The largest proportion of households in Mbeya Urban district use water harvesting bunds for erosion control.

The district has the smallest number of cattle in the region and they are mostly indigenous. Goats sheep and pigs were also kept in small numbers compared to other districts in the region. It has the comparatively smallest number of chickens as well as ducks, donkeys and rabbits. Turkeys were not found in the district.

The lowest proportion of households reporting Tsetse and comparative high proportion of households reported tick problems in the region and it had a moderate to low number of households de-wormed livestock compared to other districts. Draft animals are used and fish farming was also practiced in the district.

It is amongst the districts with the best access to primary schools and feeder roads health clinic, secondary school, all weather roads and but moderate to tertiary primary, secondary markets,

Mbeya Urban district had the smallest percentage of households with no toilet facilities. Also has the highest percentage of households with radios, wheel barrows, and irons, it is among the districts with a high percent of households owning vehicles and Tv's, but low percentages of households owning mobile and land phones. It has a big number of households using mains electricity. The most common source of energy for lighting is the wick lamp and almost all households use firewood for cooking. The district has a moderate to low percent of households with grass roofs (8%), with and 89 percent of households had iron sheet roofing. The most common sources of drinking water are from piped water and unprotected spring. It has the lowest percent of households having three meals per day compared to other districts and moderate percent with one meal, but moderate to high with two meals per day. The district has a moderate to low percent of households that did not eat meat but moderate to high percentage of households who eat fish during the week prior to enumeration; however most households seldom had problems with food satisfaction.

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TYPES OF AGRICULTURAL HOUSEHOLDS

2.1 TYPE OF AGRICULTURE HOUSEHOLD: Number of Agricultural Households by type of household and District during 2002/03 Agriculture Year

Agriculture, Non Agriculture and Urban Households									
District	Rural households involved in Agriculture	% of Total rural households	Rural households NOT involved in Agriculture	% of Total Rural households	Total Rural Households	% of Total households	Urban Households	% of Total households	Total Number of Households (from 2002 Pop. Census)
	Number	%	Number	%	Number	%	Number	%	Number
Chunya	38,262	84	2,821	6	41,083	91	4,199	9	45,282
Mbeya Rur	53,865	85	456	1	54,321	86	9,201	14	63,522
Kyela	34,192	80	3,675	9	37,867	88	5,097	12	42,964
Rungwe	67,323	90	3,151	4	70,475	95	3,975	5	74,450
Ileje	25,819	96	787	3	26,606	99	226	1	26,832
Mbozi	103,486	87	1,309	1	104,795	88	14,513	12	119,308
Mbarali	42,718	77	4,040	7	46,757	84	8,617	16	55,374
Mbeya Urb	7,180	11	2,217	3	9,397	15	54,800	85	64,197
Total	372,844	76	18,457	4	391,301	80	100,628	20	491,929

2.2 TYPE OF AGRICULTURE HOUSEHOLD: Number of Agriculture Households By Type of Holding and District, 2002/03 Agricultural Year

District	Type of Agriculture Household								Total Number of Agricultural Households	Total Number of Agricultural Households Growing Crops	Total Number of Agricultural Households Rearing Livestock
	Crops Only		Livestock Only		Crops & Livestock		Total				
	Number	%	Number	%	Number	%	Number	%			
Chunya	29,823	13	94	8	8,345	6	38,262	10	46,606	38,168	8,438
Mbeya Rur	34,368	15	121	10	19,376	14	53,865	14	73,241	53,743	19,497
Kyela	19,540	8	303	25	14,349	10	34,192	9	48,541	33,889	14,652
Rungwe	33,571	14	140	12	33,612	24	67,323	18	100,935	67,183	33,752
Ileje	14,133	6	65	5	11,621	8	25,819	7	37,439	25,754	11,685
Mbozi	64,449	28	317	27	38,720	28	103,486	28	142,207	103,170	39,037
Mbarali	31,750	14	99	8	10,869	8	42,718	11	53,586	42,619	10,967
Mbeya Urb	4,574	2	56	5	2,550	2	7,180	2	9,730	7,124	2,606
Total	232,209	100	1,195	100	139,441	100	372,844	100	512,285	371,650	140,636

AGRICULTURE HOUSEHOLDS

3.0: Number of Agricultural Households and Average Household Size By Sex of the Head of Household and District, 2002/03 Agricultural Year

District	Male			Female			Total		
	Number of Households	%	Average Household Size	Number of Households	%	Average Household Size	Number of Households	%	Average Household Size
Chunya	30,365	79	5	7,897	21	3	38,262	100	4
Mbeya Rural	37,914	70	5	15,951	30	4	53,865	100	4
Kyela	25,083	73	4	9,109	27	3	34,192	100	4
Rungwe	48,381	72	4	18,942	28	3	67,323	100	4
Ileje	18,505	72	5	7,314	28	3	25,819	100	4
Mbozi	80,232	78	5	23,255	22	4	103,486	100	5
Mbarali	32,295	76	5	10,423	24	3	42,718	100	4
Mbeya Urban	5,839	81	5	1,341	19	4	7,180	100	5
Total	278,613	75	5	94,232	25	3	372,844	100	4

3.1: Livelihood Activities/ Source of Income of the Households Ranked in Order of Importance.

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	1	6	3	2	5	7	4
Mbeya Rural	1	6	5	2	7	4	3
Kyela	1	2	3	4	6	7	5
Rungwe	1	2	3	5	7	4	6
Ileje	1	2	3	4	6	7	5
Mbozi	1	4	5	3	6	7	2
Mbarali	1	7	5	2	6	4	3
Mbeya Urban	1	5	4	2	6	7	3
Total	1	3	4	2	7	6	5

RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES

3.1a: RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: First Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	20,527	0	1,358	13,463	379	590	1,656
Mbeya Rur	32,706	6,682	1,662	9,889	1,429	0	1,497
Kyela	24,722	6,401	486	1,944	300	252	0
Rungwe	33,413	29,883	1,022	2,206	455	0	114
Ileje	17,639	4,870	383	2,283	64	0	322
Mbozi	52,148	23,328	1,798	23,383	708	528	1,242
Mbarali	32,913	0	995	7,966	638	0	0
Mbeya Urb	4,900	52	384	1,639	161	0	43
Total	218,968	71,216	8,087	62,772	4,135	1,371	4,873

3.1b: RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Second Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	17,359	482	3,717	13,334	744	365	1,249
Mbeya Rur	17,803	4,574	9,734	14,059	1,077	2,656	4,560
Kyela	7,761	10,927	5,654	6,941	790	680	434
Rungwe	24,946	19,124	9,890	7,057	1,766	3,552	1,114
Ileje	6,197	7,086	5,870	4,513	572	63	1,326
Mbozi	40,455	17,942	12,592	20,038	1,770	1,601	8,876
Mbarali	9,167	1,280	8,058	13,950	672	1,762	5,734
Mbeya Urb	2,001	341	1,349	2,701	244	47	568
Total	125,690	61,755	56,864	82,592	7,635	10,725	23,860

3.1c RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Third Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	176	1,368	5,511	3,827	3,224	449	4,857
Mbeya Rur	2,639	3,335	9,307	7,747	1,801	12,844	14,047
Kyela	785	5,385	9,606	3,912	1,946	545	2,417
Rungwe	4,750	5,802	21,141	7,959	1,144	20,462	4,636
Ileje	1,599	4,200	7,544	3,904	1,592	0	2,793
Mbozi	9,577	8,063	21,281	17,154	3,127	1,427	32,597
Mbarali	418	836	4,005	3,798	1,081	9,719	14,061
Mbeya Urb	220	895	1,136	924	529	504	1,935
Total	20,164	29,885	79,531	49,225	14,444	45,951	77,343

3.1d RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fourth Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	98	970	1,876	968	199	95	1,687
Mbeya Rur	362	1,682	4,167	7,541	829	21,535	16,543
Kyela	93	926	3,043	3,023	1,368	356	2,213
Rungwe	1,930	3,349	10,663	4,055	1,493	22,260	7,180
Ileje	192	1,218	2,310	3,316	1,267	64	3,368
Mbozi	847	3,679	9,733	8,019	3,049	536	36,809
Mbarali	113	389	1,869	616	420	11,420	7,386
Mbeya Urb	35	667	519	462	565	781	1,201
Total	3,671	12,878	34,181	28,000	9,189	57,048	76,387

3.1e RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fifth Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	0	95	196	98	0	0	0
Mbeya Rur	116	3,265	5,836	4,896	841	13,119	11,126
Kyela	0	203	513	141	88	181	450
Rungwe	539	571	4,140	4,136	803	4,379	1,714
Ileje	0	448	700	1,729	442	64	1,125
Mbozi	0	1,851	3,333	2,056	1,477	713	15,078
Mbarali	0	613	515	319	109	2,078	2,664
Mbeya Urb	0	317	238	98	260	432	425
Total	656	7,363	15,471	13,472	4,020	20,966	32,583

3.1f RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Sixth Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Mbeya Rur	0	3,740	2,136	2,624	364	3,232	2,240
Kyela	0	0	0	0	0	0	181
Rungwe	116	116	345	116	340	114	115
Ileje	0	61	124	252	1,192	0	188
Mbozi	0	178	533	355	769	356	1,515
Mbarali	0	0	0	0	106	103	105
Mbeya Urb	0	178	24	59	92	103	0
Total	116	4,273	3,161	3,405	2,862	3,909	4,345

3.1g RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Seventh Most Importance

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Chunya	0	101	0	0	0	0	0
Mbeya Rur	0	0	0	121	121	238	349
Kyela	0	0	87	0	0	89	0
Ileje	63	65	0	0	0	0	0
Mbozi	143	0	143	0	0	179	143
Mbarali	106	0	0	0	0	0	0
Mbeya Urb	0	24	0	0	22	45	0
Total	312	189	230	121	143	550	492

HOUSEHOLDS DEMOGRAPHICS:

3.2 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Sex and Age Group, 2002/03 Agricultural Year (Row %)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	97,920	49	102,126	51	200,047	100
05 - 09	126,051	50	126,750	50	252,801	100
10 - 14	119,063	49	123,349	51	242,413	100
15 - 19	90,482	51	85,869	49	176,350	100
20 - 24	60,483	45	75,167	55	135,650	100
25 - 29	52,937	43	71,276	57	124,213	100
30 - 34	47,208	46	54,648	54	101,855	100
35 - 39	40,057	47	44,888	53	84,945	100
40 - 44	29,365	48	31,195	52	60,559	100
45 - 49	25,266	49	25,995	51	51,261	100
50 - 54	22,748	48	24,284	52	47,032	100
55 - 59	13,389	44	16,909	56	30,299	100
60 - 64	17,291	55	14,173	45	31,464	100
65 - 69	12,999	49	13,544	51	26,543	100
70 - 74	11,853	57	8,850	43	20,704	100
75 - 79	7,345	56	5,705	44	13,050	100
80 - 84	3,921	69	1,771	31	5,693	100
Above 85	1,724	44	2,179	56	3,903	100
Total	780,102	48	828,679	52	1,608,781	100

3.3 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Sex and Age Group, 2002/03 Agricultural Year (Col.%)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	97,920	13	102,126	12	200,047	12
05 - 09	126,051	16	126,750	15	252,801	16
10 - 14	119,063	15	123,349	15	242,413	15
15 - 19	90,482	12	85,869	10	176,350	11
20 - 24	60,483	8	75,167	9	135,650	8
25 - 29	52,937	7	71,276	9	124,213	8
30 - 34	47,208	6	54,648	7	101,855	6
35 - 39	40,057	5	44,888	5	84,945	5
40 - 44	29,365	4	31,195	4	60,559	4
45 - 49	25,266	3	25,995	3	51,261	3
50 - 54	22,748	3	24,284	3	47,032	3
55 - 59	13,389	2	16,909	2	30,299	2
60 - 64	17,291	2	14,173	2	31,464	2
65 - 69	12,999	2	13,544	2	26,543	2
70 - 74	11,853	2	8,850	1	20,704	1
75 - 79	7,345	1	5,705	1	13,050	1
80 - 84	3,921	1	1,771	0	5,693	0
Above 85	1,724	0	2,179	0	3,903	0
Total	780,102	100	828,679	100	1,608,781	100

3.4 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Sex and District, 2002/03 Agricultural Year

District	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Chunya	80,893	50	81,531	50	162,424	100
Mbeya Rur	110,717	47	125,209	53	235,926	100
Kyela	69,099	49	73,215	51	142,314	100
Rungwe	126,663	47	145,099	53	271,763	100
Ileje	51,820	48	56,021	52	107,841	100
Mbozi	231,066	49	236,578	51	467,644	100
Mbarali	92,686	50	92,949	50	185,636	100
Mbeya Urb	17,158	49	18,077	51	35,234	100
Total	780,102	48	828,679	52	1,608,781	100

3.5 HOUSEHOLDS DEMOGRAPHYS: Number of Agriculture Household Members 5 years and above Who Can Read and Write Languages By Type of Language and District, 2002/03 Agricultural Year

District	Read & Write									
	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Chunya	91,262	63	7,819	5	394	0	45,945	32	145,420	100
Mbeya Rur	127,482	63	13,100	6	121	0	62,002	31	202,704	100
Kyela	84,508	66	9,158	7	357	0	33,319	26	127,342	100
Rungwe	164,880	68	6,632	3	231	0	69,290	29	241,034	100
Ileje	63,616	67	4,590	5	130	0	26,143	28	94,479	100
Mbozi	247,297	61	22,025	5	178	0	136,830	34	406,330	100
Mbarali	88,647	55	4,905	3	99	0	67,204	42	160,854	100
Mbeya Urb	19,922	65	2,724	9	24	0	7,901	26	30,571	100
Total	887,614	63	70,954	5	1,533	0	448,634	32	1,408,735	100

3.6 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members 5 years and above By School Attendancy and District , 2002/03 Agricultural Year

District	School Attendancy							
	Attending School		Completed		Never Attended to School		Total	
	Number	%	Number	%	Number	%	Number	%
Chunya	37,230	26	61,473	42	46,718	32	145,420	100
Mbeya Rur	69,903	34	78,631	39	54,170	27	202,704	100
Kyela	42,229	33	56,729	45	28,383	22	127,342	100
Rungwe	76,313	32	102,071	42	62,649	26	241,034	100
Ileje	31,180	33	42,452	45	20,847	22	94,479	100
Mbozi	124,287	31	177,283	44	104,761	26	406,330	100
Mbarali	38,398	24	64,895	40	57,561	36	160,854	100
Mbeya Urb	10,925	36	13,522	44	6,125	20	30,571	100
Total	430,465	31	597,055	42	381,215	27	1,408,735	100

**3.7 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members
By Main Activity and District, 2002/03 Agricultural Year**

District	Main Activity									
	Crop/Seaweed		Livestock Keeping		Livestock		Fishing			
	Number	%	Number	%	Number	%	Number	%	%	%
Chunya	85,949	59	1,838	1	191	0	196	0		
Mbeya Rur	108,364	53	1,909	1	0	0	242	0		
Kyela	69,926	55	763	1	89	0	177	0		
Rungwe	135,196	56	2,489	1	307	0	805	0		
Ileje	51,830	55	253	0	0	0	0	0		
Mbozi	217,974	54	2,595	1	178	0	528	0		
Mbarali	96,283	60	1,652	1	0	0	0	0		
Mbeya Urb	12,874	42	609	2	23	0	0	0		
Total	778,397	55	12,109	1	787	0	1,949	0		

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District	Main Activity											
	Self Employed (Non Farming) with		Self Employed (Non Farming) without		Unpaid Family Helper (Non Agriculture)		Not Working & Available		Not Working & Unavailable		Housemaker / Housewife	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Chunya	1,198	1	1,411	1	1,817	1	534	0	101	0	1,020	1
Mbeya Rur	1,080	1	844	0	242	0	120	0	121	0	241	0
Kyela	610	0	810	1	1,945	2	414	0	254	0	1,336	1
Rungwe	643	0	487	0	3,212	1	412	0	230	0	1,678	1
Ileje	693	1	641	1	635	1	319	0	126	0	258	0
Mbozi	2,651	1	5,956	1	1,671	0	2,029	0	707	0	1,285	0
Mbarali	555	0	1,600	1	1,823	1	106	0	204	0	324	0
Mbeya Urb	348	1	786	3	385	1	261	1	130	0	157	1
Total	7,778	1	12,535	1	11,731	1	4,195	0	1,873	0	6,299	0

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**HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By
Main Activity and District**

District	Main Activity							
	Student		Too Old / Retired		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Chunya	33,591	23	14,906	10	1,048	1	145,420	100
Mbeya Rur	67,757	33	18,821	9	1,197	1	202,704	100
Kyela	38,681	30	9,510	7	1,579	1	127,342	100
Rungwe	69,780	29	21,322	9	2,078	1	241,034	100
Ileje	27,695	29	9,688	10	947	1	94,479	100
Mbozi	120,665	30	43,451	11	1,241	0	406,330	100
Mbarali	35,971	22	19,679	12	1,402	1	160,854	100
Mbeya Urb	10,609	35	2,465	8	106	0	30,571	100
Total	404,749	29	139,843	10	9,599	1	1,408,735	100

3.8 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of involvement

District	Involvement in Farming									
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Chunya	86,844	60	8,505	6	26,010	18	24,062	17	145,420	100
Mbeya Rur	103,959	51	5,317	3	28,109	14	65,320	32	202,704	100
Kyela	68,618	54	4,223	3	28,001	22	26,500	21	127,342	100
Rungwe	121,504	50	9,292	4	47,504	20	62,733	26	241,034	100
Ileje	47,479	50	4,522	5	21,865	23	20,613	22	94,479	100
Mbozi	215,072	53	15,751	4	54,901	14	120,606	30	406,330	100
Mbarali	96,733	60	3,919	2	16,768	10	43,435	27	160,854	100
Mbeya Urb	12,832	42	1,626	5	9,077	30	7,037	23	30,571	100
Total	753,042	53	53,154	4	232,234	16	370,306	26	1,408,735	100

3.9 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Education Level									
	Under Standard One		Standard One		Standard Two		Standard Three			
	Number	%	Number	%	Number	%	Number	%	%	%
Chunya	0	0	621	1	1,344	2	1,896	3		
Mbeya Rur	364	0	1,552	2	3,000	4	2,490	3		
Kyela	280	0	419	1	1,298	2	2,342	4		
Rungwe	695	1	348	0	2,621	3	2,306	2		
Ileje	389	1	964	2	892	2	1,455	3		
Mbozi	2,560	1	2,910	2	6,653	4	6,898	4		
Mbarali	533	1	734	1	3,833	6	2,115	3		
Mbeya Urb	13	0	0	0	100	1	290	2		
Total	4,835	1	7,547	1	19,741	3	19,792	3		

Cont.....HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Standard Seven		Standard Eight		Training After Primary Education		Pre Form One		Form One	
	Number	%	Number	%	Number	%	Number	%	Number	%
Chunya	44,289	72	1,240	2	0	0	159	0	101	0
Mbeya Rur	57,477	73	363	0	116	0	0	0	241	0
Kyela	40,006	71	968	2	260	0	231	0	93	0
Rungwe	75,649	74	909	1	229	0	116	0	0	0
Ileje	33,141	78	194	0	181	0	65	0	189	0
Mbozi	128,404	72	1,013	1	355	0	529	0	522	0
Mbarali	41,826	64	645	1	410	1	0	0	106	0
Mbeya Urb	9,845	73	94	1	65	0	0	0	55	0
Total	430,637	72	5,426	1	1,617	0	1,099	0	1,307	0

Cont.....HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Form Two		Form Three		Form Four		Form Five		Form Six	
	Number	%	Number	%	Number	%	Number	%	Number	%
Chunya	719	1	192	0	1,134	2	0	0	0	0
Mbeya Rur	956	1	121	0	2,139	3	0	0	116	0
Kyela	661	1	257	0	1,392	2	0	0	37	0
Rungwe	116	0	338	0	1,732	2	113	0	152	0
Ileje	0	0	59	0	946	2	0	0	128	0
Mbozi	1,445	1	353	0	2,897	2	178	0	0	0
Mbarali	426	1	0	0	1,346	2	0	0	113	0
Mbeya Urb	116	1	21	0	966	7	0	0	185	1
Total	4,439	1	1,341	0	12,552	2	291	0	731	0

3.10 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Training After Secondary		University & Other Tertiary		Adult Education		Total	
	Number	%	Number	%	Number	%	Number	%
Chunya	165	0	151	0	393	1	61,473	100
Mbeya Rur	0	0	0	0	1,784	2	78,631	100
Kyela	92	0	70	0	627	1	56,729	100
Rungwe	0	0	0	0	736	1	102,071	100
Ileje	63	0	0	0	387	1	42,452	100
Mbozi	358	0	178	0	1,184	1	177,283	100
Mbarali	212	0	0	0	544	1	64,895	100
Mbeya Urb	84	1	58	0	171	1	13,522	100
Total	973	0	458	0	5,826	1	597,055	100

3.11 HOUSEHOLDS DEMOGRAPHICS: Number of Heads of Agricultural Households By Maximum Education Level Attained and District, 2002/03 Agricultural Year

District	Maximum Education Level Attained							
	No Education	Primary Education	Post Primary Education	Secondary Education	Post Secondary Education	University & Equivalent Education	Adult Education	Total
Chunya	11,067	25,363	0	1,097	165	76	494	38,262
Mbeya Rur	16,535	33,046	116	2,502	0	0	1,666	53,865
Kyela	10,567	21,423	168	1,332	92	70	539	34,192
Rungwe	25,560	39,715	0	1,587	0	0	461	67,323
Ileje	8,475	15,945	181	639	63	0	516	25,819
Mbozi	27,701	71,293	0	2,949	178	178	1,186	103,486
Mbarali	14,566	26,147	305	1,162	212	0	325	42,718
Mbeya Urb	1,924	4,433	23	534	44	70	152	7,180
Total	116,395	237,366	793	11,801	754	395	5,340	372,844

3.12 HOUSEHOLDS DEMOGRAPHICS: Mean, Median, Mode of Age of Head of Agricultural Household and District

District	Male			Female			Total		
	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode
Chunya	41	38	30	48	45	45	43	40	30
Mbeya Rur	41	38	28	45	40	28	43	39	28
Kyela	46	41	30	56	60	65	49	45	30
Rungwe	46	42	40	54	56	65	48	46	40
Ileje	43	39	40	48	46	40	44	40	40
Mbozi	41	36	30	42	40	35	41	37	35
Mbarali	44	42	40	47	43	37	45	42	30
Mbeya Urb	42	40	35	47	48	50	43	41	35
Total	43	39	30	48	45	45	44	40	35

3.13 HOUSEHOLD DEMOGRAPHICS: Number of Agricultural Households Involved in Off Farm Income Generating Activity By Number of Off Farm Income Activities and District, 2002/03 Agricultural Year

District	Off farm income							
	One Off Farm Income		Two Off Farm Income		More than Two Off Farm Income		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Chunya	17,730	54	11,918	36	3,193	10	32,841	100
Mbeya Rur	27,558	53	22,594	43	2,024	4	52,175	100
Kyela	13,427	62	6,948	32	1,404	6	21,779	100
Rungwe	16,193	58	9,555	34	2,409	9	28,157	100
Ileje	9,422	57	6,349	38	822	5	16,593	100
Mbozi	56,948	60	31,141	33	7,422	8	95,511	100
Mbarali	13,815	45	12,071	40	4,593	15	30,479	100
Mbeya Urb	3,823	59	2,089	32	621	10	6,533	100
Total	158,917	56	102,664	36	22,487	8	284,069	100

3.14 Literacy Rate of Heads of Households By District (Mbeya Region)

District	Literacy								
	Know			Don't know			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Chunya	25,037	4,055	29,092	5,328	3,842	9,170	30,365	7,897	38,262
Mbeya Rur	30,261	6,698	36,959	7,652	9,253	16,906	37,914	15,951	53,865
Kyela	20,452	3,463	23,915	4,631	5,646	10,277	25,083	9,109	34,192
Rungwe	36,758	5,175	41,933	11,623	13,767	25,390	48,381	18,942	67,323
Ileje	14,867	2,991	17,858	3,637	4,323	7,961	18,505	7,314	25,819
Mbozi	63,377	11,281	74,658	16,854	11,974	28,829	80,232	23,255	103,486
Mbarali	23,217	4,612	27,829	9,078	5,811	14,889	32,295	10,423	42,718
Mbeya Urb	4,754	478	5,232	1,085	863	1,948	5,839	1,341	7,180
Total	218,724	38,752	257,476	59,889	55,479	115,368	278,613	94,232	372,844

LAND ACCESS/OWNERSHIP

4.1 LAND ACCESS/OWNERSHIP: Number of Agricultural Households By Type of Land Ownership/Tenure and District, 2002/03 Agricultural Year

District	Land Access														
	Leased/Certificate of Ownership		Owned Under Customary Law		Bought		Rented		Borrowed		Households with Area Shared Cropped		Households with Area under Other Forms of Tenure		Total Number of Households
	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	
Chunya	1,590	4	30,461	80	1,934	5	3,599	9	1,577	4	101	0	2,608	7	38,262
Mbeya Rur	1,559	3	49,101	91	11,265	21	12,350	23	5,996	11	967	2	1,210	2	53,865
Kyela	1,732	5	28,161	82	8,616	25	7,955	23	2,857	8	162	0	751	2	34,192
Rungwe	810	1	61,310	91	12,990	19	5,049	7	4,888	7	232	0	5,367	8	67,323
Ileje	453	2	24,232	94	3,769	15	2,306	9	2,991	12	319	1	1,406	5	25,819
Mbozi	5,830	6	89,938	87	19,442	19	12,217	12	8,344	8	711	1	4,082	4	103,486
Mbarali	6,966	16	27,412	64	6,461	15	12,796	30	4,008	9	532	1	1,429	3	42,718
Mbeya Urb	272	4	6,180	86	1,374	19	1,739	24	499	7	145	2	341	5	7,180
Total	19,212	5	316,795	85	65,852	18	58,012	16	31,159	8	3,169	1	17,194	5	372,844

4.2 LAND ACCESS/OWNERSHIP: Area of Land by type of Ownership/Tenure (Hectare) and District, 2002/03 Agricultural Year

District	Land Access/ Ownership (Hectare)						
	Area Leased/Certificate of Ownership	Area Owned Under Customary Law	Area Rented From Others	Area Borrowed From Others	Area Shared Cropped From Others	Area under Other Forms of Tenure	Total
Chunya	6,370	74,658	5,030	1,560	595	12,129	105,890
Mbeya Rur	3,018	69,186	6,479	2,246	392	680	90,893
Kyela	795	33,685	4,504	1,226	51	277	47,090
Rungwe	750	67,637	3,185	1,274	70	3,036	86,975
Ileje	465	39,800	1,299	1,357	252	600	45,620
Mbozi	8,126	149,081	8,879	4,901	644	7,195	199,316
Mbarali	16,671	46,182	11,742	3,155	390	2,292	89,545
Mbeya Urb	189	4,735	744	151	53	119	6,811
Total	36,383	484,963	41,861	15,870	2,448	26,330	672,142

LAND USE

5.1 LAND USE: Number of Agricultural Households By Type of Land Use and District, 2002/03 Agricultural Year

District	Land Use												Total Number of Households
	Households with Temporary Mono Crops	Households with Temporary Mixed Crops	Households with Permanent Mono Crops	Households with Permanent Mixed Crops	Households with Permanent / Annual Mix	Households with Pasture	Households with Fallow	Households with Natural Bush	Households with Planted Trees	Households with Rented to Others	Households with Unusable	Households with Uncultivated Usable Land	
Chunya	31,747	16,053	386	400	589	683	4,717	2,671	203	1,111	4,034	5,967	38261.7061
Mbeya Rur	49,920	12,528	10,663	3,932	3,963	706	9,227	602	13,117	1,563	1,453	3,475	53864.8142
Kyela	33,012	3,950	7,213	15,709	176	88	2,198	85	257	758	462	2,582	34191.7565
Rungwe	48,071	33,439	18,179	33,219	12,410	1,497	5,051	230	11,390	1,142	1,032	3,441	67323.1632
Ileje	22,977	17,672	4,944	7,967	6,495	515	3,720	195	7,002	1,027	1,929	3,010	25818.7746
Mbozi	97,171	8,446	41,247	11,506	5,511	1,592	9,561	2,110	11,299	1,590	2,756	7,952	103486.477
Mbarali	40,240	5,350	1,027	598	1,165	105	3,644	0	595	2,194	522	7,489	42717.5595
Mbeya Urb	5,557	3,100	284	458	1,591	89	258	13	2,081	143	114	347	7180.04434
Total	328,695	100,539	83,942	73,790	31,899	5,276	38,376	5,906	45,944	9,527	12,303	34,263	372844.296

5.2 LAND USE: Area of Land (Ha) By Type of Land Use and District, 2002/03 Agricultural Year

District	Land Use												Total
	Area under Temporary Mono Crops	Area under Temporary Mixed Crops	Area under Permanent Mono Crops	Area under Permanent Mixed Crops	Area under Permanent / Annual Mix	Area under Pasture	Area under Fallow	Area under Natural Bush	Area under Planted Trees	Area Rented to Others	Area Unusable	Area of Uncultivated Usable Land	
Chunya	53,198	19,426	59	203	1,007	1,682	8,943	4,667	62	1,844	5,413	9,387	105,890
Mbeya Rur	56,728	8,430	4,610	2,032	3,835	321	7,286	176	3,016	1,364	502	2,592	90,893
Kyela	29,812	1,675	3,042	7,633	174	71	1,697	17	60	606	324	1,979	47,090
Rungwe	29,312	17,259	6,912	17,614	6,246	849	2,368	167	4,013	351	466	1,419	86,975
Ileje	18,693	10,350	1,277	3,991	2,519	371	2,103	39	2,470	506	1,413	1,888	45,620
Mbozi	128,678	7,285	24,296	8,701	2,987	2,836	6,682	6,559	2,795	1,097	1,410	5,990	199,316
Mbarali	62,849	5,437	314	142	694	212	3,514		251	2,920	290	13,006	89,630
Mbeya Urb	3,337	1,473	102	159	650	30	130	3	411	226	36	255	6,811
Total	382,607	71,336	40,612	40,475	18,111	6,372	32,723	11,629	13,078	8,915	9,854	36,515	672,227
%	57	11	6	6	3	1	5	2	2	1	1	5	100

5.3 LAND SUFFICIENCY: Number of Agricultural Households by Whether All Land Available to the Household Was Used and District, 2002/03 Agricultural Year

District	Was all Land Available to the Hh Used During 2002/03?					
	Yes		No		Total	
	Number	%	Number	%	Number	%
Chunya	26,198	69	11,970	31	38,168	100
Mbeya Rur	42,132	78	11,612	22	53,743	100
Kyela	28,696	85	5,192	15	33,889	100
Rungwe	59,149	88	8,034	12	67,183	100
Ileje	17,498	68	8,256	32	25,754	100
Mbozi	80,977	78	22,193	22	103,170	100
Mbarali	28,691	67	13,928	33	42,619	100
Mbeya Urb	6,286	88	838	12	7,124	100
Total	289,627	78	82,023	22	371,650	100

5.4 LAND SUFFICIENCY: Number of Agricultural Households by Whether they Consider Having Sufficient Land for the Household and District, 2002/03 Agricultural Year

District	Do you Consider that you have sufficient land for the Hh?					
	Yes		No		Total	
	Number	%	Number	%	Number	%
Chunya	29,134	76	9,035	24	38,168	100
Mbeya Rur	17,435	32	36,308	68	53,743	100
Kyela	14,189	42	19,699	58	33,889	100
Rungwe	42,363	63	24,820	37	67,183	100
Ileje	15,752	61	10,002	39	25,754	100
Mbozi	58,206	56	44,963	44	103,170	100
Mbarali	22,609	53	20,010	47	42,619	100
Mbeya Urb	2,034	29	5,090	71	7,124	100
Total	201,722	54	169,927	46	371,650	100

5.5 LAND SUFFICIENCY: Number of Agricultural Households by whether Female Members of the Household Own or Have Customary Right to Land and District, 2002/03 Agricultural Year

District	Do any Female Members of the Hh own or have customary right					
	Yes		No		Total	
	Number	%	Number	%	Number	%
Chunya	4,528	12	33,640	88	38,168	100
Mbeya Rur	19,231	36	34,513	64	53,743	100
Kyela	5,634	17	28,254	83	33,889	100
Rungwe	14,339	21	52,844	79	67,183	100
Ileje	3,882	15	21,872	85	25,754	100
Mbozi	19,935	19	83,235	81	103,170	100
Mbarali	8,711	20	33,908	80	42,619	100
Mbeya Urb	1,957	27	5,167	73	7,124	100
Total	78,216	21	293,433	79	371,650	100

**TOTAL ANNUAL CROPS & VEGETABLE PRODUCTION -
WET & DRY SEASONS**

7.1 & 7.2a TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Area Planted (ha) by Season and District

District	Dry Season		Wet Season			% Area planted in dry rainy season
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)	Total area planted (hectare)	
Chunya	0	0	38,168	71,788	71,788	0
Mbeya Rural	14,441	10,454	49,572	56,801	67,256	16
Kyela	0	0	33,449	30,792	30,792	0
Rungwe	41,014	27,034	44,374	25,431	52,466	52
Ileje	5,288	4,113	25,499	26,451	30,564	13
Mbozi'	0	0	102,992	138,870	138,870	0
Mbarali	0	0	42,520	62,299	62,299	0
Mbeya Urban	44	39	7,112	5,153	5,191	1
Total	60,786	41,640	343,685	417,585	459,226	9

7.1 & 7.2b ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households Planting Crops By Season and District-LONG RAINY SEASON

District	Dry Season		Wet Season		Total Number of Crop Growing Households
	Households Growing Crops	Households NOT Growing Crops	Number of Households Growing Crops	Number of Households NOT Growing Crops	
Chunya	0	38,262	38,168	94	38,262
Mbeya Rural	14,441	39,424	49,572	4,293	53,865
Kyela	0	34,192	33,449	742	34,192
Rungwe	41,014	26,310	44,374	22,950	67,323
Ileje	5,288	20,531	25,499	320	25,819
Mbozi'	0	103,486	102,992	495	103,486
Mbarali	0	42,718	42,520	197	42,718
Mbeya Urban	44	7,136	7,112	68	7,180
Total	60,786	312,058	343,685	29,159	372,844

7.1& 7.2c: TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Area Planted (Ha) and Quantity Harvested by Season and Crop for the 2002/03 Agricultural Year, Mbeya Region

Crop	Dry Season			Wet Season			Total		
	Planted area (ha)	Quantity Harvested (tons)	Yield (Kg/ha)	Planted area (ha)	Quantity Harvested (tons)	Yield (Kg/ha)	Planted area (ha)	Quantity Harvested (tons)	Yield (Kg/ha)
Maize	29,417	41,305	1,404	202,326	244,907	1,210	231,743	286,213	1,235
Paddy	0	0	0	54,743	62,780	1,147	54,743	62,780	1,147
Sorghum	0	0	0	25,953	21,214	817	25,953	21,214	817
Bulrush Millet	0	0	0	2,162	1,183	547	2,162	1,183	547
Finger Millet	200	107	535	9,828	6,940	706	10,028	7,047	703
Wheat	0	0	0	4,289	4,436	1,034	4,289	4,436	1,034
Barley	23	91	3,952	0	0	0	23	91	3,952
CEREALS	29,640	41,504	1,400	299,301	341,460	1,141	328,941	382,964	1,164
Cassava	665	1,115	1,675	12,832	18,389	1,433	13,498	19,504	1,445
Sweet Potatoes	686	644	938	4,180	5,959	1,425	4,867	6,603	1,357
Irish Potatoes	2,423	8,284	3,419	5,292	15,170	2,867	7,715	23,454	3,040
Yams	23	97	4,150	186	422	2,270	209	520	2,481
Cocoyam	427	1,248	2,923	425	1,261	2,967	852	2,509	2,945
ROOTS & TUBERS	4,225	11,388	2,695	22,916	41,201	1,798	27,141	52,589	1,938
Mung Beans	0	0	0	0	0	0	0	0	0
Beans	5,955	3,137	527	56,637	26,477	467	62,593	29,615	473
Cowpeas	18	6	321	290	85	293	309	91	295
Green Gram	0	0	0	0	0	0	0	0	0
Pigeon Peas	0	0	0	0	0	0	0	0	0
Chich Peas	0	0	0	5	1	148	5	1	148
Bambaranuts	9	20	2,199	584	322	551	593	342	577
Field Peas	178	312	1,756	1,367	449	329	1,544	761	493
PULSES	6,161	3,476	564	58,882	27,334	464	65,043	30,809	474
Sunflower	33	27	816	3,781	1,783	471	3,814	1,809	474
Simsim	0	0	0	5,194	2,051	395	5,194	2,051	395
Groundnuts	981	381	388	20,073	10,343	515	21,054	10,724	509
Soya Beans	0	0	0	79	35	438	79	35	438
Castor Seed	0	0	0	0	0	0	0	0	0
OIL SEEDS & OIL NU	1,013	407	402	29,127	14,212	488	30,141	14,619	485
Okra	0	0	0	0	0	0	0	0	0
Radish	0	0	0	795	318	400	795	318	400
Turmeric	0	0	0	0	0	0	0	0	0
Bitter Aubergine	0	0	0	6	62	11,066	6	62	11,066
Garlic	0	0	0	0	0	0	0	0	0
Onions	10	93	9,410	686	3,694	5,389	695	3,787	5,446
Ginger	0	0	0	0	0	0	0	0	0
Cabbage	150	402	2,684	169	1,329	7,888	318	1,731	5,439
Tomatoes	134	579	4,316	1,084	5,734	5,289	1,218	6,312	5,182
Spinnach	51	10	186	85	216	2,525	137	225	1,650
Carrot	0	0	0	10	47	4,885	10	47	4,885
Chillies	0	0	0	4	25	7,127	4	25	7,127
Amaranths	131	67	513	289	371	1,284	420	438	1,043
Pumpkins	47	16	352	318	645	2,029	365	661	1,814
Cucumber	0	0	0	0	1	3,952	0	1	3,952
Egg Plant	5	1	247	11	1	79	15	2	131
Water Mellon	0	0	0	0	0	0	0	0	0
Cauliflower	0	0	0	0	0	0	0	0	0
FRUITS & VEGETABL	528	1,168	2,214	3,454	12,442	3,602	3,982	13,610	3,418
Seaweed	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	0	0	0	0	0	0
Tobacco	0	0	0	3,733	3,606	966	3,733	3,606	966
Pyrethrum	73	89	1,210	172	156	906	245	245	997
Jute	0	0	0	0	0	0	0	0	0
CASH CROPS	73	89	1,210	3,906	3,762	963	3,979	3,850	968
Total	41,640			417,585		0	459,226		

7.1 & 7.2d. TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Agricultural Households by Area Planted (Ha) and Crop for the Agricultural Year 2002/03 Dry & Wet Season Mbeya Region

Crop	Dry Season		Wet Season		Total Area Planted Dry & Wet Seasons	% of Area Planted in Dry Season
	Number of Households	Planted area (ha)	Number of Households	Planted area (ha)		
Maize	58,263	29,417	283,942	202,326	231,743	12.7
Paddy	0	0	80,091	54,743	54,743	0.0
Sorghum	0	0	28,156	25,953	25,953	0.0
Bulrush Millet	0	0	2,142	2,162	2,162	0.0
Finger Millet	1,272	200	30,364	9,828	10,028	2.0
Wheat	0	0	11,471	4,289	4,289	0.0
Barley	114	23	0	0	23	100.0
CEREALS	59,649	29,640	436,166	299,301	328,941	9.0
Cassava	3,187	665	38,067	12,832	13,498	4.9
Sweet Potatoes	3,188	686	17,030	4,180	4,867	14.1
Irish Potatoes	7,619	2,423	13,780	5,292	7,715	31.4
Yams	116	23	1,128	186	209	11.2
Cocoyam	2,647	427	3,447	425	852	50.1
ROOTS & TUBERS	16,756	4,225	73,453	22,916	27,141	15.6
Mung Beans	0	0	0	0	0	0.0
Beans	25,710	5,955	172,711	56,637	62,593	9.5
Cowpeas	245	18	1,147	290	309	6.0
Green Gram	0	0	0	0	0	0.0
Pigeon Peas	0	0	0	0	0	0.0
Chich Peas	0	0	23	5	5	0.0
Bambaranuts	245	9	3,742	584	593	1.5
Field Peas	579	178	5,077	1,367	1,544	11.5
PULSES	26,779	6,161	182,700	58,882	65,043	9.5
Sunflower	296	33	10,545	3,781	3,814	0.9
Simsim	0	0	7,719	5,194	5,194	0.0
Groundnuts	5,497	981	77,149	20,073	21,054	4.7
Soya Beans	0	0	464	79	79	0.0
Castor Seed	0	0	0	0	0	0.0
OIL SEEDS & OIL NUTS	5,793	1,013	95,876	29,127	30,141	3.4
Okra	0	0	0	0	0	0.0
Radish	0	0	98	795	795	0.0
Turmeric	0	0	0	0	0	0.0
Bitter Aubergine	0	0	37	6	6	0.0
Garlic	0	0	0	0	0	0.0
Onions	116	10	3,288	686	695	1.4
Ginger	0	0	0	0	0	0.0
Cabbage	929	150	2,145	169	318	47.1
Tomatoes	985	134	5,167	1,084	1,218	11.0
Spinnach	247	51	662	85	137	37.4
Carrot	0	0	105	10	10	0.0
Chillies	0	0	48	4	4	0.0
Amaranths	725	131	2,021	289	420	31.3
Pumpkins	320	47	1,534	318	365	12.8
Cucumber	0	0	9	0	0	0.0
Egg Plant	116	5	104	11	15	30.8
Water Mellon	0	0	0	0	0	0.0
Cauliflower	0	0	0	0	0	0.0
FRUITS & VEGETABLES	3,437	528	15,218	3,454	3,982	13.3
Seaweed	0	0	0	0	0	0.0
Cotton	0	0	0	0	0	0.0
Tobacco	0	0	4,118	3,733	3,733	0.0
Pyrethrum	362	73	607	172	245	29.9
Jute	0	0	0	0	0	0.0
CASH CROPS	362	73	4,725	3,906	3,979	1.8
Total		41,640		417,585	459,226	9.1

7.1 & 7.2e TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Agricultural Households and Planted Area by Means of Soil Preparation and District Dry and Wet Seasons- Mbeya Region

Soil Preparation								
District	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Chunya	475	923	21,871	28,359	59,336	42,487	81,681	71,768
Mbeya Rural	121	12	12,698	8,542	100,422	48,056	113,241	56,610
Kyela	1,007	1,472	34,386	21,703	23,403	7,567	58,797	30,742
Rungwe	807	177	10,840	2,876	77,592	22,175	89,239	25,227
Ileje	254	95	2,234	604	82,050	25,422	84,538	26,122
Mbozi	3,366	1,432	94,422	59,973	172,315	73,229	270,103	134,633
Mbarali	4,472	5,133	37,307	34,862	40,620	22,177	82,399	62,172
Mbeya Urban	244	34	1,837	966	13,401	4,153	15,481	5,153
Total	10,745	9,278	215,595	157,885	569,139	245,266	795,479	412,429

ANNUAL CROP & VEGETABLE PRODUCTION- DRY SEASON

7.1 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area (ha) By Means Used for Land Clearing and District During 2002/03 Crop Year-SHORT RAINY SEASON

District	Mostly Bush Clearance	Mostly Hand Slashing	Mostly Tractor Slashing	Mostly Burning	No Land Clearing	Other	Total
	Planted Area	Planted Area	Planted Area	Planted Area	Planted Area	Planted Area	Planted Area
Mbeya Rural	24	6,730	74	49	3,528	49	10,454
Rungwe	249	26,488	23	.	249	.	27,009
Ileje	.	4,091	4,091
Mbeya Urban	.	28	11	.	.	.	39
Total	273	37,337	108	49	3,777	49	41,592

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By Fertilizer Use and District During 2002/03 Crop Year-SHORT RAINY SEASON

District	Fertilizer Use					Total
	Mostly Farm Yard Manure	Mostly Compost	Mostly Inorganic Fertilizer	No Fertilizer Applied		
	Planted Area	Planted Area	Planted Area	Planted Area	Planted Area	
Mbeya Rural	1,169	551	2,546	6,188		10,454
Rungwe	9,399	964	4,124	12,547		27,034
Ileje	2,037	346	628	1,103		4,113
Mbeya Urban	2	9	8	19		39
Total	12,607	1,871	7,307	19,856		41,640

7.3 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area by Irrigation Use and District During 2002/03 Crop Year-SHORT RAINY SEASON

District	Irrigation Use			Total
	Households Using Irrigation	Households Not Using Irrigation		
	Planted Area	Planted Area	Planted Area	
Mbeya Rural	1,599	8,856		10,454
Rungwe	659	26,375		27,034
Ileje	962	3,151		4,113
Mbeya Urban	9	29		39
Total	3,229	38,411		41,640

**7.4 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By
Herbicide Use and District During 2002/03 Crop Year SHORT RAINY
SEASON**

District	Herbicide Use		
	Households Using Herbicide	Households Not Using Herbicide	Total
	Planted Area	Planted Area	Planted Area
Mbeya Rural	86	10,368	10,454
Rungwe	147	26,888	27,034
Ileje	33	4,080	4,113
Mbeya Urban	.	39	39
Total	265	41,375	41,640

**7.5 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By
Fungicide Use and District During 2002/03 Crop Year SHORT RAINY
SEASON**

District	Fungicide Use		
	Households Using Fungicide	Households Not Using Fungicide	Total
	Planted Area	Planted Area	Planted Area
Mbeya Rural	208	10,246	10,454
Rungwe	833	26,201	27,034
Ileje	179	3,934	4,113
Mbeya Urban	19	20	39
Total	1,239	40,401	41,640

**7.6 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By
Improved Seed Use and District During 2002/03 Crop Year - SHORT RAINY**

District	Improved Seed Use		
	Households Using Improved Seed	Households Not Using Improved Seed	Total
	Planted Area	Planted Area	Planted Area
Mbeya Rural	1,062	9,392	10,454
Rungwe	6,430	20,604	27,034
Ileje	767	3,346	4,113
Mbeya Urban	8	30	39
Total	8,268	33,372	41,640

ANNUAL CROP & VEGETABLE PRODUCTION - WET SEASON

7.2a ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area (ha) By Means Used for Soil Preparation and District During 2002/03 Crop Year-LONG RAINY SEASON

District	Soil Preparation			
	Mostly Tractor Ploughing	Mostly Oxen Ploughing	Mostly Hand Cultivation	Total
	Planted Area	Planted Area	Planted Area	Planted Area
Chunya	923	28,359	42,487	71,768
Mbeya Rural	12	8,542	48,056	56,610
Kyela	1,472	21,703	7,567	30,742
Rungwe	177	2,876	22,175	25,227
Ileje	95	604	25,422	26,122
Mbozi'	1,432	59,973	73,229	134,633
Mbarali	5,133	34,862	22,177	62,172
Mbeya Urban	34	966	4,153	5,153
Total	9,278	157,885	245,266	412,429

7.2b ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By Fertilizer Use and District During 2002/03 Crop Year-LONG RAINY SEASON

District	Fertilizer Use				Total
	Mostly Farm Yard Manure	Mostly Compost	Mostly Inorganic Fertilizer	No Fertilizer Applied	
	Planted Area	Planted Area	Planted Area	Planted Area	
Chunya	4,555	1,744	9,736	55,754	71,788
Mbeya Rur	7,475	4,410	15,819	29,098	56,801
Kyela	1,073	2,559	1,561	25,599	30,792
Rungwe	5,211	1,740	1,087	17,393	25,431
Ileje	5,632	2,612	5,041	13,165	26,451
Mbozi	13,605	8,297	37,408	79,561	138,870
Mbarali	4,784	345	3,248	53,921	62,299
Mbeya Urb	992	176	2,694	1,291	5,153
Total	43,326	21,882	76,594	275,783	417,585

7.2c ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By Irrigation Use and District During 2002/03 Crop Year LONG RAINY SEASON

District	Irrigation Use		
	Households Using Irrigation	Households Not Using Irrigation	Total
	Planted Area	Planted Area	Planted Area
Chunya	2,506	69,282	71,788
Mbeya Rur	1,778	55,023	56,801
Kyela	370	30,422	30,792
Rungwe	1,534	23,897	25,431
Ileje	1,293	25,158	26,451
Mbozi	14,092	124,778	138,870
Mbarali	21,154	41,145	62,299
Mbeya Urb	285	4,867	5,153
Total	43,012	374,573	417,585

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By Herbicide Use and District During 2002/03 Crop Year LONG RAINY SEASON

District	Herbicide Use		
	Households Using Herbicide	Households Not Using Herbicide	Total
	Planted Area	Planted Area	Planted Area
Chunya	1,601	70,188	71,788
Mbeya Rur	861	55,940	56,801
Kyela	9,849	20,943	30,792
Rungwe	536	24,895	25,431
Ileje	480	25,971	26,451
Mbozi	9,890	128,980	138,870
Mbarali	2,694	59,605	62,299
Mbeya Urb	129	5,024	5,153
Total	26,039	391,546	417,585

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By Pesticide Use and District During 2002/03 Crop Year in LONG RAINY SEASON

District	Pesticide Use		
	Households Using Pesticide	Households Not Using Pesticide	Total
	Planted Area	Planted Area	Planted Area
Chunya	5,556	66,232	71,788
Mbeya Rur	13,730	43,072	56,801
Kyela	18	30,774	30,792
Rungwe	713	24,718	25,431
Ileje	2,705	23,746	26,451
Mbozi	19,576	119,294	138,870
Mbarali	1,766	60,532	62,299
Mbeya Urb	2,257	2,896	5,153
Total	46,322	371,263	417,585

7.1.2j: MARETING: Number of Crop Producing Households Reporting Selling Agricultural Products During 2003/04 By District, 2002/03 Agricultural Year

District	Households that Sold Produce		Households that Did not Sell Produce		Total of Households
	Number	%	Number	%	Number
Chunya	16,475	43	21,786	57	38,262
Mbeya Rural	45,557	85	8,308	15	53,865
Kyela	29,091	85	5,101	15	34,192
Rungwe	60,729	90	6,594	10	67,323
Ileje	21,649	84	4,170	16	25,819
Mbozi'	91,048	88	12,439	12	103,486
Mbarali	22,433	53	20,285	47	42,718
Mbeya Urban	5,498	77	1,682	23	7,180
Total	292,480	78	80,364	22	372,844

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area By Pesticide Use and District During 2002/03 Crop Year in LONG RAINY SEASON

District	Pesticide Use		
	Households Using Pesticide	Households Not Using Pesticide	Total
	Planted Area	Planted Area	Planted Area
Chunya	5,556	66,232	71,788
Mbeya Rur	13,730	43,072	56,801
Kyela	18	30,774	30,792
Rungwe	713	24,718	25,431
Ileje	2,705	23,746	26,451
Mbozi	19,576	119,294	138,870
Mbarali	1,766	60,532	62,299
Mbeya Urb	2,257	2,896	5,153
Total	46,322	371,263	417,585

7.2.1 Number of Agricultural Households, Area Planted (Ha) and Quantity of Maize Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Maize											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0	36,660	40,508	34,886	0.861	36,660	40,508	34,886	0.861
Mbeya Rur	12,882	7,588	12,389	1,633	40,612	29,841	37,754	1.265	53,493	37,429	50,143	1.340
Kyela	0	0	0	0	17,042	7,036	6,888	0.979	17,042	7,036	6,888	0.979
Rungwe	40,554	19,351	25,672	1,327	23,853	9,631	11,432	1.187	64,407	28,982	37,103	1.280
Ileje	4,784	2,460	3,235	1,315	22,538	12,091	14,533	1.202	27,322	14,551	17,768	1.221
Mbozi	0	0	0	0	98,069	67,736	114,794	1.695	98,069	67,736	114,794	1.695
Mbarali	0	0	0	0	38,146	32,101	17,928	0.558	38,146	32,101	17,928	0.558
Mbeya Urb	44	18	10	577	7,022	3,382	6,692	1.979	7,066	3,400	6,702	1.971
Total	58,263	29,417	41,305	1,404	283,942	202,326	244,907	1.210	342,205	231,743	286,213	1.235

7.2.2 Number of Agricultural Households, Area Planted (Ha) and Quantity of Paddy Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Paddy											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0	2,386	1,853	1,365	0.737	2,386	1,853	1,365	0.737
Mbeya Rur	0	0	0	0	351	72	64	0.890	351	72	64	0.890
Kyela	0	0	0	0	31,343	20,811	19,814	0.952	31,343	20,811	19,814	0.952
Rungwe	0	0	0	0	9,517	3,364	3,484	1.036	9,517	3,364	3,484	1.036
Ileje	0	0	0	0	2,749	731	539	0.737	2,749	731	539	0.737
Mbozi	0	0	0	0	9,210	6,346	4,069	0.641	9,210	6,346	4,069	0.641
Mbarali	0	0	0	0	24,504	21,546	33,430	1.552	24,504	21,546	33,430	1.552
Mbeya Urb	0	0	0	0	31	21	14	0.680	31	21	14	0.680
Total	0	0	0	0	80,091	54,743	62,780	1.147	80,091	54,743	62,780	1.147

7.2.3 Number of Agricultural Households, Area Planted (Ha) and Quantity of Sorghum Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Sorghum											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0	8,900	11,313	8,672	0.767	8,900	11,313	8,672	0.767
Mbeya Rur	0	0	0	0	1,659	1,530	616	0.403	1,659	1,530	616	0.403
Kyela	0	0	0	0	257	69	148	2.130	257	69	148	2.130
Rungwe	0	0	0	0	0	0	0	0	0	0	0	0.000
Ileje	0	0	0	0	389	46	32	0.697	389	46	32	0.697
Mbozi	0	0	0	0	14,717	10,943	10,732	0.981	14,717	10,943	10,732	0.981
Mbarali	0	0	0	0	2,214	2,042	1,012	0.496	2,214	2,042	1,012	0.496
Mbeya Urb	0	0	0	0	18	11	2	0.165	18	11	2	0.165
Total	0	0	0	0	28,156	25,953	21,214	0.817	28,156	25,953	21,214	0.817

7.2.4 Number of Agricultural Households, Area Planted (Ha) and Quantity of Finger Millet Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Finger Millet											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0	2,178	788	300	0.381	2,178	788	300	0.381
Mbeya Rur	1,091	141	90	1	6,321	1,895	816	0.431	7,412	2,037	906	0.445
Kyela	0	0	0	0	86	17	0	0.000	86	17	0	0.000
Rungwe	116	6	9	2	1,619	303	137	0	1,735	309	147	0.475
Ileje	65	53	8	0	4,966	1,903	1,492	0.784	5,031	1,955	1,500	0.767
Mbozi	0	0	0	0	14,757	4,793	4,187	0.874	14,757	4,793	4,187	0.874
Mbarali	0	0	0	0	333	112	1	0.012	333	112	1	0.012
Mbeya Urb	0	0	0	0	104	17	6	0.334	104	17	6	0.334
Total	0	0	0	0	30,364	9,828	6,940	0.706	30,364	9,828	6,940	0.706

7.2.4 Number of Agricultural Households, Area Planted (Ha) and Quantity of Wheat Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Wheat											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0	0	0	0	0	0	0	0	0.000
Mbeya Rur	0	0	0	0	9,674	3,657	3,997	1.093	9,674	3,657	3,997	1.093
Kyela	0	0	0	0	0	0	0	0.000	0	0	0	0.000
Rungwe	0	0	0	0	0	0	0	0.000	0	0	0	0.000
Ileje	0	0	0	0	971	426	149	0	971	426	149	0.351
Mbozi	0	0	0	0	0	0	0	0.000	0	0	0	0.000
Mbarali	0	0	0	0	0	0	0	0.000	0	0	0	0.000
Mbeya Urb	0	0	0	0	825	205	289	1.410	825	205	289	1.410
Total	0	0	0	0	11,471	4,289	4,436	1.034	11,471	4,289	4,436	1.034

7.2.4 Number of Agricultural Households, Area Planted (Ha) and Quantity of Cassava Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Cassava											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0	2,390	729	278	0	2,390	729	278	0.381
Mbeya Rur	116	47	150	3	947	312	147	0.473	1,062	359	298	0.831
Kyela	0	0	0	0	4,013	1,416	4,382	3.094	4,013	1,416	4,382	3.094
Rungwe	1,970	284	781	3	8,061	2,520	8,228	3.265	10,031	2,804	9,009	3.213
Ileje	1,101	335	183	1	7,813	1,883	2,453	1	8,914	2,218	2,636	1.188
Mbozi	0	0	0	0	13,697	5,630	2,492	0.443	13,697	5,630	2,492	0.443
Mbarali	0	0	0	0	1,113	333	406	1.219	1,113	333	406	1.219
Mbeya Urb	0	0	0	0	33	9	4	0.389	33	9	4	0.389
Total	3,187	665	1,115	0	38,067	12,832	18,389	1.433	41,254	13,498	19,504	1.445

7.2.5 Number of Agricultural Households, Area Planted (Ha) and Quantity of Sweet Potatoes Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Sweet Potatoes											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.000	1,143	448	377	0.841	1,143	448	377	0.841
Mbeya Rur	237	61	70	1.148	808	298	293	0.983	1,046	359	362	1.011
Kyela	0	0	0	0.000	1,256	373	519	1.393	1,256	373	519	1.393
Rungwe	2,305	491	446	0.908	1,840	203	273	1.346	4,145	693	718	1.036
Ileje	646	135	128	0.955	7,777	1,358	2,380	1.753	8,423	1,492	2,508	1.681
Mbozi	0	0	0	0.000	2,252	604	859	1.424	2,252	604	859	1.424
Mbarali	0	0	0	0.000	1,944	898	1,258	1.401	1,944	898	1,258	1.401
Mbeya Urb	0	0	0	0.000	9	1	1	1.482	9	1	1	1.482
Total	3,188	686	644	0.000	17,030	4,180	5,959	1.425	20,218	4,867	6,603	1.357

7.2.6 Number of Agricultural Households, Area Planted (Ha) and Quantity of Irish Potatoes Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Irish Potatoes											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbeya Rur	2,657	714	2,479	3.474	8,551	3,511	9,329	2.657	11,208	4,225	11,809	2.795
Kyela	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Rungwe	4,939	1,691	5,647	3.340	913	323	1,155	3.575	5,851	2,014	6,801	3.378
Ileje	0	0	0	0.000	646	279	290	1.041	646	279	290	1.041
Mbozi	0	0	0	0.000	2,235	740	2,447	3.308	2,235	740	2,447	3.308
Mbarali	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbeya Urb	23	19	158	8.472	1,436	439	1,948	4.438	1,460	458	2,106	4.602
Total	7,619	2,423	8,284	3.419	13,780	5,292	15,170	2.867	21,399	7,715	23,454	3.040

7.2.7 Number of Agricultural Households, Area Planted (Ha) and Quantity of Yams Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Yams											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbeya Rur	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Kyela	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Rungwe	116	23	97	4.150	231	40	31	0.786	347	63	129	2.035
Ileje	0	0	0	0.000	897	146	391	2.674	897	146	391	2.674
Mbozi	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbarali	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbeya Urb	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Total	116	23	97	0.000	1,128	186	422	2.270	1,244	209	520	2.481

7.2.8 Number of Agricultural Households, Area Planted (Ha) and Quantity of Cocoyams Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Cocoyams											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbeya Rur	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Kyela	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Rungwe	1,937	321	950	2.963	1,839	218	506	2.318	3,776	539	1,456	2.701
Ileje	710	106	298	2.801	1,608	207	755	3.652	2,318	313	1,053	3.363
Mbozi	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbarali	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Mbeya Urb	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Total	2,647	427	1,248	2.923	3,447	425	1,261	2.967	6,094	852	2,509	2.945

7.2.9 Number of Agricultural Households, Area Planted (Ha) and Quantity of Beans Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Beans											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.000	8,882	3,791	1,496	0.395	8,882	3,791	1,496	0.395
Mbeya Rur	6,461	1,631	1,000	0.613	30,125	10,536	4,873	0.463	36,585	12,167	5,873	0.483
Kyela	0	0	0	0.000	1,727	418	253	0.606	1,727	418	253	0.606
Rungwe	16,289	3,718	1,847	0.497	30,806	7,528	3,364	0.447	47,096	11,246	5,211	0.463
Ileje	2,940	604	290	0.480	21,556	4,931	1,946	0.395	24,496	5,535	2,236	0.404
Mbozi	0	0	0	0.000	72,033	27,786	13,439	0.484	72,033	27,786	13,439	0.484
Mbarali	0	0	0	0.000	3,142	787	693	0.881	3,142	787	693	0.881
Mbeya Urb	21	2	1	0.296	4,441	860	413	0.480	4,462	862	414	0.480
Total	25,710	5,955	3,137	0.527	172,711	56,637	26,477	0.467	198,422	62,593	29,615	0.473

7.2.10 Number of Agricultural Households, Area Planted (Ha) and Quantity of Cowpeas Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Cowpeas											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.000	289	37	74	1.998	289	37	74	1.998
Mbeya Rur	116	9	3	0.358	0	0	0	0.000	116	9	3	0.358
Kyela	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Rungwe	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Ileje	129	9	3	0.282	129	9	4	0.445	258	18	7	0.363
Mbozi	0	0	0	0.000	172	17	3	0.198	172	17	3	0.198
Mbarali	0	0	0	0.000	558	226	3	0.014	558	226	3	0.014
Mbeya Urb	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Total	245	18	6	0.321	1,147	290	85	0.293	1,392	309	91	0.295

7.2.11 Number of Agricultural Households, Area Planted (Ha) and Quantity of Chick Peas Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Chickpeas											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Ileje	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbozi	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbarali	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	23	5	1	0.148	23	5	1	0.15
Total	0	0	0	0.00	23	5	1	0.148	23	5	1	0.15

7.2.12 Number of Agricultural Households, Area Planted (Ha) and Quantity of Bambaranuts Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Bambaranuts											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	101	41	10	0.247	101	41	10	0.25
Mbeya Rur	116	5	17	3.71	119	24	3	0.124	235	29	20	0.70
Kyela	0	0	0	0.00	657	89	75	0.844	657	89	75	0.84
Rungwe	0	0	0	0.00	2,082	234	181	0.774	2,082	234	181	0.77
Ileje	129	4	3	0.61	447	48	19	0.389	576	52	21	0.41
Mbozi	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbarali	0	0	0	0.00	336	147	34	0.228	336	147	34	0.23
Mbeya Urb	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Total	245	9	20	2.20	3,742	584	322	0.551	3,987	593	342	0.58

7.2.13 Number of Agricultural Households, Area Planted (Ha) and Quantity of Field Peas Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Field Peas											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbeya Rur	121	74	27	0.37	1,441	282	144	0.509	1,563	356	171	0.48
Kyela	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Rungwe	458	104	285	2.74	461	93	16	0.173	919	197	301	1.52
Ileje	0	0	0	0.00	1,096	356	106	0.297	1,096	356	106	0.30
Mbozi	0	0	0	0.00	1,423	583	152	0.261	1,423	583	152	0.26
Mbarali	0	0	0	0.00	0	0	0	0.000	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	656	52	32	0.609	656	52	32	0.61
Total	579	178	312	1.76	5,077	1,367	449	0.329	5,656	1,544	761	0.49

7.2.14 Number of Agricultural Households, Area Planted (Ha) and Quantity of Sunflower Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Sunflower											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	266	141	100	0.71	266	141	100	0.71
Mbeya Rur	232	30	25	0.83	3,304	967	497	0.51	3,535	997	523	0.52
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	65	2	2	0.66	1,335	209	113	0.54	1,400	1,400	114	0.08
Mbozi	0	0	0	0.00	4,229	1,495	827	0.55	4,229	4,229	827	0.20
Mbarali	0	0	0	0.00	1,342	956	234	0.25	1,342	1,342	234	0.17
Mbeya Urb	0	0	0	0.00	68	14	11	0.79	68	68	11	0.16
Total	296	33	27	0.82	10,545	3,781	1,783	0.47	10,841	10,841	1,809	0.17

7.2.15 Number of Agricultural Households, Area Planted (Ha) and Quantity of Simsim Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Simsim											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	3,124	2,981	1,303	0.44	3,124	2,981	1,303	0.44
Mbeya Rur	0	0	0	0.00	345	930	173	0.19	345	930	173	0.19
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	232	23	9	0.40	232	23	9	0.40
Ileje	0	0	0	0.00	126	19	2	0.13	126	19	2	0.13
Mbozi	0	0	0	0.00	3,892	1,240	564	0.45	3,892	1,240	564	0.45
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Total	0	0	0	0.00	7,719	5,194	2,051	0.39	7,719	5,194	2,051	0.39

7.2.16 Number of Agricultural Households, Area Planted (Ha) and Quantity of Groundnuts Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Groundnuts											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	11,375	4,527	2,299	0.51	11,375	4,527	2,299	0.51
Mbeya Rur	463	47	30	0.64	4,979	1,752	637	0.36	5,442	1,799	667	0.37
Kyela	0	0	0	0.00	2,579	562	444	0.79	2,579	562	444	0.79
Rungwe	4,004	863	337	0.39	7,134	826	608	0.74	11,139	1,689	945	0.56
Ileje	1,029	71	13	0.19	9,160	1,544	759	0.49	10,189	1,615	772	0.48
Mbozi	0	0	0	0.00	34,532	8,117	4,686	0.58	34,532	8,117	4,686	0.58
Mbarali	0	0	0	0.00	7,378	2,742	909	0.33	7,378	2,742	909	0.33
Mbeya Urb	0	0	0	0.00	12	2	2	1.10	12	2	2	1.10
Total	5,497	981	381	0.39	77,149	20,073	10,343	0.52	82,646	21,054	10,724	0.51

7.2.17 Number of Agricultural Households, Area Planted (Ha) and Quantity of Soya Beans Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Soya Beans											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	0	0	0	0.00	324	51	32	0.63	324	51	32	0.63
Mbozi	0	0	0	0.00	139	28	3	0.10	139	28	3	0.10
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Total	0	0	0	0.00	464	79	35	0.44	464	79	35	0.44

7.2.18 Number of Agricultural Households, Area Planted (Ha) and Quantity of Radish Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Radish											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	98	795	318	0.40	98	795	318	0.40
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbozi	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Total	0	0	0	0.00	98	795	318	0.40	98	795	318	0.40

7.2.19 Number of Agricultural Households, Area Planted (Ha) and Quantity of Bitter Aubergine Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Bitter Aubergine											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbozi	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	37	6	62	11.07	37	6	62	11.07
Total	0	0	0	0.00	37	6	62	11.07	37	6	62	11.07

7.2.20 Number of Agricultural Households, Area Planted (Ha) and Quantity of Onions Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Onions											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.000	0	0	0	0.000
Mbeya Rur	116	10	93	9.41	2,420	539	3,508	6.505	2,536	549	3,601	6.557
Kyela	0	0	0	0.00	0	0	0	0.000	0	0	0	0.000
Rungwe	0	0	0	0.00	0	0	0	0.000	0	0	0	0.000
Ileje	0	0	0	0.00	580	92	139	1.512	580	92	139	1.512
Mbozi	0	0	0	0.00	172	42	7	0.165	172	42	7	0.165
Mbarali	0	0	0	0.00	106	11	34	3.162	106	11	34	3.162
Mbeya Urb	0	0	0	0.00	9	2	7	3.557	9	2	7	3.557
Total	116	10	93	9.41	3,288	686	3,694	5.389	3,404	695	3,787	5.446

7.2.21 Number of Agricultural Households, Area Planted (Ha) and Quantity of Cabbage Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Cabbage											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	121	12	18	1.48	238	24	59	2.44	360	36	77	2.11
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	308	43	315	7.33	163	16	33	1.98	471	59	347	5.85
Ileje	500	95	69	0.73	0	0	0	0.00	500	95	69	0.73
Mbozi	0	0	0	0.00	1,724	126	1,214	9.64	1,724	126	1,214	9.64
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	20	2	24	11.86	20	2	24	11.86
Total	929	150	402	2.68	2,145	169	1,329	7.89	3,074	318	1,731	5.44

7.2.22 Number of Agricultural Households, Area Planted (Ha) and Quantity of Tomatoes Harvested (Tonnes) by Season and District ,

District	Tomatoes											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	1,324	445	3,106	6.99	1,324	445	3,106	6.99
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	424	43	505	11.77	323	44	242	5.46	747	87	747	8.57
Ileje	561	91	74	0.81	258	29	53	1.83	818	120	127	1.06
Mbozi	0	0	0	0.00	1,639	219	1,115	5.09	1,639	219	1,115	5.09
Mbarali	0	0	0	0.00	1,092	237	398	1.68	1,092	237	398	1.68
Mbeya Urb	0	0	0	0.00	532	109	820	7.49	532	109	820	7.49
Total	985	134	579	4.32	5,167	1,084	5,734	5.29	6,151	1,218	6,312	5.18

7.2.23 Number of Agricultural Households, Area Planted (Ha) and Quantity of Spinach Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Spinach											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	114	23	123	5.34	114	23	123	5.34
Ileje	247	51	10	0.19	0	0	0	0.00	247	51	10	0.19
Mbozi	0	0	0	0.00	529	61	92	1.52	529	61	92	1.52
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	19	2	0	0.16	19	2	0	0.16
Total	247	51	10	0.19	662	85	216	2.53	909	137	225	1.65

7.2.24 Number of Agricultural Households, Area Planted (Ha) and Quantity of Carrot Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Carrot											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbozi	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	105	10	47	4.88	105	10	47	4.88
Total	0	0	0	0.00	105	10	47		105	10	47	4.88

7.2.25 Number of Agricultural Households, Area Planted (Ha) and Quantity of Chillies Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Chillies											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbozi	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbarali	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Urb	0	0	0	0.00	48	4	25	7.13	48	4	25	7.13
Total	0	0	0	0.00	48	4	25	7.13	48	4	25	7.13

7.2.25 Number of Agricultural Households, Area Planted (Ha) and Quantity of Amaranths Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Pumpkins											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	113	11	34	2.96	121	15	6	0.41	235	18	40	2.29
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	232	70	24	0.35	392	33	60	1.84	624	131	85	0.65
Ileje	379	49	9	0.18	64	3	0	0.00	444	49	9	0.18
Mbozi	0	0	0	0.00	1,345	198	88	0.44	1,345	88	88	1.00
Mbarali	0	0	0	0.00	99	40	217	5.43	99	217	217	1.00
Mbeya Urb	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Total	725	131	67	0.51	2,021	289	371	1.28	2,745	502	438	0.87

7.2.26 Number of Agricultural Households, Area Planted (Ha) and Quantity of Pumpkins Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Pumpkins											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	193	126	121	0.96	193	126	121	0.96
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Ileje	320	47	16	0.35	899	76	70	0.91	1,219	123	86	0.70
Mbozi	0	0	0	0.00	139	6	14	2.47	139	6	14	2.47
Mbarali	0	0	0	0.00	302	110	440	4.00	302	110	440	4.00
Mbeya Urb	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Total	320	47	16	0.35	1,534	318	645	2.03	1,854	365	661	1.81

7.2.27 Number of Agricultural Households, Area Planted (Ha) and Quantity of Egg plants Harvested (Tonnes) by Season and District , 2002/03 Agricultural Year

District	Egg plants											
	Dry Season				Wet Season				Total			
	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield	Number of Household	Area Planted	Quantity Harvested	Yield
Chunya	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbeya Rur	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Kyela	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Rungwe	116	5	1	0.25	0	0	0	0.00	116	5	1	0.25
Ileje	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbozi	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Mbarali	0	0	0	0.00	104	11	1	0.08	104	11	1	0.08
Mbeya Urb	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
Total	116	5	1	0.25	104	11	1	0.08	104	11	1	0.079

PERMANENT CROPS

7.3 Production of Permanent Crops by Crop Type and District - Mbeya Rgion

District/Crop		Planted Area (ha)	Area Harvested (ha)	Quantity Harvested (tons)	Yield (Kgs/ha)
Chunya	Mango	80	59	929	15,874
	Total	80	59	929	15,874
Mbeya Rural	Coffee	5,071	3,396	3,266	962
	Sugarcane	24	12	1,784	148,200
	Mpesheni	0	0	.	.
	Banana	493	500	1,916	3,835
	Avocado	20	63	344	5,459
	Mango	42	49	1,104	22,684
	Pawpaw
	Pineapple	.	5	1	296
	Guava
	Apples	5	5	5	988
	Pitches	26	12	41	3,449
Mbeya Rural	Total	5,681	4,040	8,461	2,094
Kyela	Pigeon Pea	8	8	5	642
	Star Fruit	17	17	374	21,654
	Palm Oil	1,807	1,822	2,591	1,422
	Coconut	40	40	30	755
	Cashewnut	577	363	97	267
	Cocoa	7,685	5,058	4,344	859
	Rubber	36	0	.	.
	Mpesheni	10	10	228	22,870
	Banana	3,007	3,177	17,102	5,383
	Avocado	50	34	29	856
	Mango	485	410	1,768	4,310
	Pawpaw	7	7	2	247
	Pineapple	3	3	35	11,115
	Orange	548	137	476	3,483
	Mandarine/Tangerine	15	15	393	25,935
Kyela	Total	14,296	11,102	27,474	2,475
Rungwe	Sour Soup	46	23	.	.
	Pigeon Pea	67	67	48	709
	Star Fruit	0	0	5	.
	Palm Oil	1,607	188	967	5,152
	Coffee	19,761	5,391	4,386	814
	Tea	4,608	3,166	16,691	5,272
	Cocoa	7,643	3,708	1,068	288
	Sugarcane	228	199	3,417	17,136
	Cardamon	440	63	13	210
	Cloves	77	31	7	228
	Banana	43,366	18,741	183,775	9,806
	Avocado	2,974	382	4,211	11,031
	Mango	2,466	366	1,938	5,295
	Pawpaw	261	52	246	4,764
	Pineapple	20	0	25	.
	Orange	1,419	191	940	4,914
	Guava	0	47	12	247
	Plums	47	0	3	.
	Pitches	27	25	131	5,214
Rungwe	Total	85,058	32,639	217,883	6,676

Cont.....Production of Permanent Crops by Crop Type and District - Mbeya Rgion

		Planted Area (ha)	Area Harvested (ha)	Quantity Harvested (tons)	Yield (Kgs/Ha)
Ileje	Pigeon Pea	33	31	9	283
	Coffee	2,672	2,199	4,698	2,137
	Cocoa	134	106	6	60
	Sugarcane	108	108	2,789	25,872
	Cardamon	474	416	71	171
	Mpesheni	41	49	289	5,938
	Banana	2,408	1,754	13,392	7,634
	Avocado	161	117	706	6,044
	Mango	245	166	1,578	9,476
	Pawpaw	5	5	5	926
	Pineapple	3	3		
	Orange	103	59	89	1,521
	Grape	24	0		
	Guava			7	
	Pitches				
Total	6,412	5,011	23,638	4,717	
Mbozi'	Sour Soup	18	18	215	11,856
	Rubber Vine Fruit	29	0		
	Pigeon Pea	36	18	2	99
	Star Fruit	90	72	36	494
	Coffee	31,692	27,980	86,326	3,085
	Sugarcane	330	261	3,801	14,559
	Jack Fruit				
	Banana	1,259	1,321	8,269	6,258
	Avocado	316	153	1,740	11,373
	Mango	477	362	3,383	9,348
	Pawpaw	0	0	12	
	Orange	7	7	137	19,714
	Grape Fruit	348	69	478	6,923
	Guava				
Total	34,603	30,262	104,398	3,450	
Mbarali	Sugarcane	149	148	3,831	25,876
	Banana	1,926	45	22	494
	Mango	4,522	360	1,477	4,102
	Pawpaw		0		
	Orange	23	23	53	2,371
	Guava		13	27	2,141
	Lime/Lemon		8	15	1,820
Total	6,620	597	5,426	9,092	
Mbeya Urban	Mangostine	4	4	1	296
	Malay Apple	3	3	7	2,058
	Palm Oil				
	Sisal	2	0		
	Coffee	265	96	165	1,728
	Sugarcane		1	35	37,050
	Jack Fruit	2	2	0	191
	Banana	255	158	765	4,847
	Avocado	141	51	174	3,412
	Mango	42	24	75	3,078
	Pawpaw	55	14	91	6,286
	Orange	3	3	4	1,546
	Grape				
	Guava	23	13	34	2,579
	Apples	3	2		
	Pitches	23	27	174	6,322
	Lime/Lemon	9	9	4	481
Total	830	407	1,529	3,756	

Cont...Production of Permanent Crops by Crop Type and District - Mbeya Rgion

		Planted Area (ha)	Area Harvested (ha)	Quantity Harvested (tons)	Yield (Kgs/Ha)
	Sour Soup	65	41	215	5,203
	Rubber Vine	29	0		
	Mangostine	4	4	1	296
	Pigeon Pea	145	124	63	510
	Malay Apple	3	3	7	2,058
	Star Fruit	108	89	415	4,634
	Palm Oil	3,414	2,010	3,558	1,770
	Coconut	40	40	30	755
	Cashewnut	577	363	97	267
	Sisal	2	0		
	Coffee	59,460	39,061	98,841	2,530
	Tea	4,608	3,166	16,691	5,272
	Cocoa	15,462	8,871	5,418	611
	Rubber	36	0		
	Sugarcane	839	729	15,658	21,468
	Cardamon	914	479	84	176
	Cloves	77	31	7	228
	Jack Fruit	2	2	0	191
	Mpesheni	51	59	517	8,819
	Banana	52,715	25,696	225,241	8,766
	Avocado	3,662	799	7,205	9,013
	Mango	8,359	1,796	12,251	6,821
	Pawpaw	329	78	354	4,553
	Pineapple	25	11	62	5,802
	Orange	2,101	419	1,700	4,061
	Grape Fruit	348	69	478	6,923
	Grape	24	0		
	Mandarine/Tea	15	15	393	25,935
	Guava	23	72	80	1,098
	Plums	47	0	3	
	Apples	8	7	5	732
	Pitches	77	64	345	5,364
	Lime/Lemon	9	17	20	1,136
Grand Total	Total	153,578	84,116	389,739	4,633

Cont...Area Planted (Ha) by Crop Type - Mbeya Region

Crop	Area Planted (ha)	%
Coffee	59,460	39
Banana	52,715	34
Cocoa	15,462	10
Mango	8,359	5
Tea	4,608	3
Avocado	3,662	2
Palm Oil	3,414	2
Orange	2,101	1
Cardamon	914	1
Sugarcane	839	1
Cashewnut	577	0
Grape Fruit	348	0
Pawpaw	329	0
Pigeon Pea	145	0
Star Fruit	108	0
Cloves	77	0
Pitches	77	0
Sour Soup	65	0
Mpesheni	51	0
Plums	47	0
Coconut	40	0
Rubber	36	0
Rubber Vine Fruit	29	0
Pineapple	25	0
Grape	24	0
Guava	23	0
Mandarine/Tangerine	15	0
Lime/Lemon	9	0
Apples	8	0
Mangostine	4	0
Malay Apple	3	0
Jack Fruit	2	0
Sisal	2	0
Total	153,578	100

7.4 Total Area Planted (Ha) with Coffee - Mbeya Region

District	Area planted with coffee	Total Area Planted (Ha)	% of Total Area Planted	hh with coffee	Average Planted Area per Household
Mbozi	31,692	138,870	56	47,842	0.66
Rungwe	19,761	52,466	35	24,743	0.80
Mbeya Rural	5,071	67,256	9	10,899	0.47
Mbeya Urban	265	5,191	0	435	0.61
Chunya	0	71,788	0	0	0.00
Ileje	0	30,564	0	0	0.00
Mbarali	0	62,299	0	0	0.00
Kyela	0	30,792	0	0	0.00
Total	56,788	459,226	100	83,918	0.68

7.6 Total Area Planted (Ha) with Cocoa - Mbeya Region

District	Area planted with Cocoa	Total Area Planted (Ha)	% of Total Area Planted	hh with Cocoa	Average Planted Area per Household
Kyela	7,685	30,792	50	17,622	0.44
Rungwe	7,643	52,466	49	10,427	0.73
Ileje	134	30,564	1	566	0.24
Chunya	0	71,788	0	0	0.00
Mbeya Rural	0	67,256	0	0	0.00
Mbozi	0	138,870	0	0	0.00
Mbarali	0	62,299	0	0	0.00
Mbeya Urban	0	5,191	0	0	0.00
Total	15,462	459,226	100	28,615	0.54

7.5 Total Area Planted (Ha) with Banana - Mbeya Region

District	Area planted with Banana	Total Area Planted (Ha)	% of Total Area Planted	hh with Banana	Average Planted Area per Household
Rungwe	43,366	52,466	82	53,157	0.82
Kyela	3,007	30,792	6	15,646	0.19
Ileje	2,408	30,564	5	12,440	0.19
Mbarali	1,926	62,299	4	215	8.96
Mbozi	1,259	138,870	2	9,327	0.14
Mbeya Rural	493	67,256	1	2,410	0.20
Mbeya Urban	255	5,191	0	855	0.30
Chunya	0	71,788	0	0	0.00
Total	52,715	459,226	100	40,893	1.29

7.7 Total Area Planted (Ha) with Mangoes - Mbeya Region

District	Area planted with Mangoes	Total Area Planted (Ha)	% of Total Area Planted	hh with Manmgoes	Average Planted Area per Household
Mbarali	4,522	62,299	54	2,013	2.25
Rungwe	2,466	67,256	30	354	0.12
Kyela	485	71,788	6	193	0.41
Mbozi	477	138,870	6	4,367	0.11
Ileje	245	30,792	3	3,180	0.15
Chunya	80	52,466	1	4,717	0.52
Mbeya Urban	42	5,191	1	127	0.34
Mbeya Rural	42	30,564	1	1,323	0.19
Total	8,360	459,226	100	16,272	0.51

7.8 Production of Permanent Planted Crops with Fertilizer Use - Mbeya Region

Crop	Fertilizer Use				Total
	Mostly Farm Yard Manure	Mostly Compost	Mostly Inorganic Fertilizer	No Fertilizer Applied	
Sour Soup	0	0	0	65	65
Rubber Vine Fruit	0	0	0	29	29
Mangostine	0	0	0	4	4
Pigeon Pea	24	0	0	97	122
Malay Apple	3	0	0	0	3
Star Fruit	0	0	0	108	108
Palm Oil	54	0	0	3,353	3,407
Coconut	0	0	0	23	23
Cashewnut	11	0	0	566	577
Sisal	0	0	0	2	2
Coffee	20,572	7,978	15,972	14,563	59,085
Tea	70	0	4,410	128	4,608
Cocoa	975	437	0	14,040	15,452
Rubber	36	0	0		36
Sugarcane	102	0	0	716	818
Cardamon	302	121	3	489	914
Cloves	0	0	0	77	77
Jack Fruit	2	0	0	0	2
Mpesheni	31	0	0	20	51
Banana	14,707	9,191	1,436	27,314	52,648
Avocado	371	52	20	3,008	3,452
Mango	309	392	2	7,654	8,357
Pawpaw	107	0	14	207	329
Pineapple	20	0	0	6	25
Orange	103	205	0	1,669	1,977
Grape Fruit	0	0	348	0	348
Grape	0	0	0	24	24
Mandarine/Tangerine	0	0	0	15	15
Guava	15	0	0	9	23
Plums	0	0	0	47	47
Apples	3	0	0	5	8
Pitches	12	11	1	52	77
Lime/Lemon	6	0	2	1	9
Total	37,836	18,387	22,208	74,289	152,721

**7.9 Production of Permanent Planted Crops with Fertilizer by Farm Yard Manure -
Mbeya Region**

Crop	Mostly Farm Yard Manure	Total	%
Sour Soup	0	65	0
Rubber Vine F	0	29	0
Mangostine	0	4	0
Pigeon Pea	24	122	20
Malay Apple	3	3	100
Star Fruit	0	108	0
Palm Oil	54	3,407	2
Coconut	0	23	0
Cashewnut	11	577	2
Sisal	0	2	0
Coffee	20,572	59,085	35
Tea	70	4,608	2
Cocoa	975	15,452	6
Rubber	36	36	100
Sugarcane	102	818	12
Cardamon	302	914	33
Cloves	0	77	0
Jack Fruit	2	2	100
Mpesheni	31	51	60
Banana	14,707	52,648	28
Avocado	371	3,452	11
Mango	309	8,357	4
Pawpaw	107	329	33
Pineapple	20	25	77
Orange	103	1,977	5
Grape Fruit	0	348	0
Grape	0	24	0
Mandarine/Ta	0	15	0
Guava	15	23	63
Plums	0	47	0
Apples	3	8	41
Pitches	12	77	16
Lime/Lemon	6	9	67
Total	37,836	152,721	25

7.10 Production of Permanent Planted Crops with Fertilizer by Most Compost Manure - Mbeya Region

Crop	Mostly Compost Manure	Total	%
Sour Soup	0	65	0
Rubber Vine Fruit	0	29	0
Mangostine	0	4	0
Pigeon Pea	0	122	0
Malay Apple	0	3	0
Star Fruit	0	108	0
Palm Oil	0	3,407	0
Coconut	0	23	0
Cashewnut	0	577	0
Sisal	0	2	0
Coffee	7,978	59,085	14
Tea	0	4,608	0
Cocoa	437	15,452	3
Rubber	0	36	0
Sugarcane	0	818	0
Cardamon	121	914	13
Cloves	0	77	0
Jack Fruit	0	2	0
Mpesheni	0	51	0
Banana	9,191	52,648	17
Avocado	52	3,452	2
Mango	392	8,357	5
Pawpaw	0	329	0
Pineapple	0	25	0
Orange	205	1,977	10
Grape Fruit	0	348	0
Grape	0	24	0
Mandarine/Tangerine	0	15	0
Guava	0	23	0
Plums	0	47	0
Apples	0	8	0
Pitches	11	77	15
Lime/Lemon	0	9	0
Total	18,387	152,721	12

7.11 Production of Permanent Planted Crops with Fertilizer by Most Inorganic Manure - Mbeya Region

Crop	Mostly Inorganic Fertilizer	Total	%
Sour Soup	0	65	0
Rubber Vine Fruit	0	29	0
Mangostine	0	4	0
Pigeon Pea	0	122	0
Malay Apple	0	3	0
Star Fruit	0	108	0
Palm Oil	0	3,407	0
Coconut	0	23	0
Cashewnut	0	577	0
Sisal	0	2	0
Coffee	15,972	59,085	27
Tea	4,410	4,608	96
Cocoa	0	15,452	0
Rubber	0	36	0
Sugarcane	0	818	0
Cardamon	3	914	0
Cloves	0	77	0
Jack Fruit	0	2	0
Mpesheni	0	51	0
Banana	1,436	52,648	3
Avocado	20	3,452	1
Mango	2	8,357	0
Pawpaw	14	329	4
Pineapple	0	25	0
Orange	0	1,977	0
Grape Fruit	348	348	100
Grape	0	24	0
Mandarine/Tangerine	0	15	0
Guava	0	23	0
Plums	0	47	0
Apples	0	8	0
Pitches	1	77	1
Lime/Lemon	2	9	22
Total	22,208	152,721	15

AGROPROCESSING

8.0a AGRO PROCESSING: Did the Household Process any Of the Products Harvested

District	Did the Hh Process any of the products harvested during 2002					
	Households That Processed Product		Households That Did Not Process Product		Total	
	Number	%	Number	%	Number	%
Chunya	37,159	97	1,102	3	38,262	100
Mbeya Rural	49,916	93	3,949	7	53,865	100
Kyela	32,663	96	1,529	4	34,192	100
Rungwe	64,922	96	2,402	4	67,323	100
Ileje	25,246	98	573	2	25,819	100
Mbozi'	101,321	98	2,165	2	103,486	100
Mbarali	33,028	77	9,689	23	42,718	100
Mbeya Urban	6,921	96	259	4	7,180	100
Total	351,176	94	21,668	6	372,844	100

8.0b AGRO PROCESSING: Number of Crop Growing Households Reporting Processing of Farm Products Produced During 2002/03 Agriculture Year By Method of Processing and District

District	Method of Processing									Total
	On Farm by Hand	On Farm by Machine	By Neighbour Machine	By Farmers Association	By Co-operative Union	By Trader	On Large Scale Farm	Other	By Factory	
Chunya	1,838	290	34,930	0	0	101	0	0	0	37,159
Mbeya Rural	2,255	364	39,224	0	0	8,072	0	0	0	49,916
Kyela	4,210	1,723	22,970	0	0	3,588	0	172	0	32,663
Rungwe	5,244	6,696	50,089	0	232	2,661	0	0	0	64,922
Ileje	3,860	2,055	18,230	0	0	1,102	0	0	0	25,246
Mbozi'	4,019	2,424	91,954	352	0	1,861	179	358	173	101,321
Mbarali	542	1,202	31,180	0	105	0	0	0	0	33,028
Mbeya Urban	205	674	5,819	0	37	187	0	0	0	6,921
Total	22,173	15,428	294,395	352	373	17,573	179	530	173	351,176
%	6	4	84	0	0	5	0	0	0	100

8.1.1 AGROPROCESSING: Number of Crop Growing Households Reporting Processing of Farm Products Produced During 2003/04 By Location of Processing and Crop

District	Method of Processing									
	On Farm by Hand	On Farm by Machine	By Neighbour Machine	By Farmers Association	By Co-operative Union	By Trader	On Large Scale Farm	Other	By Factory	Total
Maize	1,572	290	33,125	0	0	101	0	0	0	35,089
Paddy	681	79	769	0	0	99	0	0	0	1,628
Sorghum	179	101	8,152	0	0	0	0	0	0	8,433
Finger Millet	96	0	883	0	0	0	0	0	0	980
Cassava	781	0	298	0	0	0	0	0	0	1,079
Sweet Potatoes	95	0	0	0	0	0	0	0	0	95
Beans	828	0	0	0	0	0	0	0	0	828
Simsim	0	0	84	0	0	0	0	0	0	84
Groundnut	7,985	201	466	0	0	0	0	98	0	8,750
Tobacco	0	0	0	0	0	0	0	0	96	96
Maize	2,255	243	38,738	0	0	8,072	0	0	0	49,309
Paddy	113	0	0	0	0	238	0	0	0	351
Sorghum	0	0	347	0	0	0	0	0	0	347
Finger Millet	338	0	1,305	0	0	120	0	0	0	1,763
Wheat	0	0	4,360	0	0	471	0	0	0	4,831
Beans	113	121	235	0	0	0	0	0	0	470
Sunflower	0	0	469	0	0	954	0	0	0	1,423
Groundnut	1,382	0	243	0	0	119	0	0	0	1,744
Coffee	0	972	243	0	0	0	0	0	0	1,214
Maize	516	1,257	10,856	0	0	2,002	0	0	0	14,631
Paddy	4,325	1,026	19,075	0	0	4,591	0	663	0	29,680
Cassava	440	0	0	0	0	0	0	0	0	440
Groundnut	356	0	71	0	0	0	0	0	0	427
Oil Palm	1,037	1,375	7,594	0	0	430	0	0	0	10,437
Coconut	185	0	0	0	0	0	0	0	0	185
Cashewnut	0	0	90	0	0	0	0	0	0	90
Cocoa	2,076	173	82	0	0	0	0	0	0	2,332
Banana	93	0	88	0	0	0	0	0	0	181
Maize	3,572	5,765	50,088	0	232	2,661	0	0	0	62,318
Paddy	3,646	1,372	2,765	0	0	695	0	0	0	8,478
Finger Millet	0	0	0	0	0	232	0	0	0	232
Cassava	1,039	114	114	0	0	116	0	0	0	1,383
Beans	1,156	579	2,429	0	0	0	0	0	0	4,165
Groundnut	304	0	0	0	0	0	0	0	0	304
Oil Palm	0	346	345	0	0	0	0	0	0	691
Coffee	4,401	10,359	1,266	0	0	0	0	0	0	16,027
Banana	2,066	116	421	0	0	0	0	0	0	2,603
Maize	3,480	2,305	18,165	0	0	1,102	0	0	0	25,051
Paddy	944	64	868	0	0	65	0	0	0	1,940
Sorghum	0	0	260	0	0	0	0	0	0	260
Finger Millet	453	127	2,382	0	0	0	0	0	0	2,962
Wheat	0	0	454	0	0	0	0	0	0	454
Cassava	1,141	0	322	0	0	0	0	0	0	1,464
Beans	681	65	0	0	0	0	0	0	0	746
Bambaranut	62	0	0	0	0	0	0	0	0	62
Sunflower	0	0	189	0	0	324	65	0	0	578

Cont.....Number of Crop Growing Households Reporting Processing of Farm Products Produced During 2003/04 By Location of Processing and Crop

Groundnut	1,080	0	64	0	0	64	0	59	0	1,267
Soya Beans	0	0	0	0	0	0	65	0	0	65
Coffee	62	2,182	1,933	0	0	0	0	0	0	4,177
Banana	0	0	324	0	0	0	0	0	0	324
Maize	2,963	1,574	84,900	179	0	1,861	179	358	173	92,187
Paddy	528	358	5,004	0	0	0	0	0	0	5,891
Sorghum	704	176	13,135	0	0	0	0	0	0	14,014
Bulrush Millet	354	0	1,058	0	0	0	0	0	0	1,412
Finger Millet	1,590	0	4,450	0	0	0	0	0	0	6,040
Cassava	4,454	0	891	0	0	175	0	0	0	5,520
Beans	0	0	179	0	0	172	0	0	0	351
Sunflower	0	0	884	173	0	717	0	0	358	2,132
Groundnut	2,848	0	873	0	0	495	0	0	523	4,739
Coffee	2,931	32,012	6,928	0	0	0	174	0	2,986	45,032
Banana	1,962	0	0	0	0	0	0	0	0	1,962
Maize	218	976	26,802	0	0	0	0	0	0	27,995
Paddy	640	325	13,485	0	211	0	0	0	0	14,662
Sorghum	111	226	1,316	0	0	0	0	0	0	1,653
Cassava	105	0	0	0	0	0	0	0	0	105
Sweet Potatoes	432	0	0	0	0	0	0	0	0	432
Sunflower	111	0	0	0	0	0	0	0	0	111
Groundnut	1,174	0	0	0	0	0	0	0	0	1,174
Maize	181	656	5,802	0	37	187	0	0	0	6,863
Paddy	0	0	17	0	0	0	0	0	0	17
Wheat	0	0	136	23	0	0	0	0	0	159
Beans	0	0	22	0	0	0	0	0	0	22
Sunflower	0	0	41	0	0	0	0	0	0	41
Groundnut	0	0	12	0	0	0	0	0	0	12
Coffee	189	149	128	0	0	0	0	0	0	465

8.1.1b AGRO PROCESSING: Number of Crop Growing Households By Use of Primary Processed Product During 2002/03 Agriculture Year and District

District	Product Use						Total
	Household / Human Consumption	Fuel for Cooking	Sale Only	Animal Consumption	Did Not Use	Other	
Chunya	36,786	95	101	101	76	0	37,159
Mbeya Rural	49,676	119	121	0	0	0	49,916
Kyela	27,655	0	4,481	351	176	0	32,663
Rungwe	62,498	116	1,272	920	0	116	64,922
Ileje	24,794	0	130	129	129	64	25,246
Mbozi'	97,539	0	2,272	840	491	179	101,321
Mbarali	32,534	0	196	0	298	0	33,028
Mbeya Urban	6,711	0	123	87	0	0	6,921
Total	338,193	330	8,696	2,428	1,169	360	351,176

8.1.1c AGRO PROCESSING: Number of Crop Growing Households By Where Product Sold During 2002/03 Agriculture Year and District

District	Where Sold									
	Neighbours	Local Market / Trade Store	Secondary Market	Marketing Co-operative	Farmers Association	Large Scale Farm	Trader at Farm	Other	Did not Sell	Total
Chunya	3,620	0	398	0	101	0	385	2,738	29,917	37,159
Mbeya Rural	717	242	0	118	0	0	121	0	48,718	49,916
Kyela	1,021	1,854	0	88	279	0	3,622	254	25,545	32,663
Rungwe	1,027	3,239	232	230	0	0	1,504	579	58,111	64,922
Ileje	943	1,337	506	65	65	0	0	128	22,203	25,246
Mbozi'	465	351	0	358	530	179	526	318	98,593	101,321
Mbarali	603	87	0	0	620	87	0	105	31,526	33,028
Mbeya Urban	612	45	41	17	36	0	361	22	5,787	6,921
Total	9,009	7,153	1,177	876	1,631	266	6,520	4,145	320,399	351,176

8.1.1d AGRO PROCESSING: Number of Crop Growing Households By Main Product During 2002/03 Agriculture Year and District

District	Main Product							Total
	Flour / Meal	Grain	Oil	Juice	Pulp	Rubber	Other	
Chunya	33,991	3,168	0	0	0	0	0	37,159
Mbeya Rural	48,718	963	235	0	0	0	0	49,916
Kyela	6,786	21,294	4,245	87	90	161	0	32,663
Rungwe	53,349	11,033	191	0	116	0	232	64,922
Ileje	23,771	1,222	124	65	0	0	64	25,246
Mbozi'	94,726	5,712	350	0	357	176	0	101,321
Mbarali	26,022	7,007	0	0	0	0	0	33,028
Mbeya Urban	6,775	123	0	0	0	23	0	6,921
Total	294,138	50,522	5,145	152	564	360	296	351,176

8.1.1e AGRO PROCESSING: Number of Crop Growing Households By Use of Primary Processed Product During 2002/03 Agriculture Year and District

District	Product Use						Total
	Household / Human Consumption	Fuel for Cooking	Sale Only	Animal Consumption	Did Not Use	Other	
Chunya	36,786	95	101	101	76	0	37,159
Mbeya Rural	49,676	119	121	0	0	0	49,916
Kyela	27,655	0	4,481	351	176	0	32,663
Rungwe	62,498	116	1,272	920	0	116	64,922
Ileje	24,794	0	130	129	129	64	25,246
Mbozi'	97,539	0	2,272	840	491	179	101,321
Mbarali	32,534	0	196	0	298	0	33,028
Mbeya Urban	6,711	0	123	87	0	0	6,921
Total	338,193	330	8,696	2,428	1,169	360	351,176

8.1.1f AGRO PROCESSING: Number of Crop Growing Households By Where Product Sold During 2002/03 Agriculture Year and District

District	Where Sold									
	Neighbours	Local Market / Trade Store	Secondary Market	Marketing Co-operative	Farmers Association	Large Scale Farm	Trader at Farm	Other	Did not Sell	Total
Chunya	3,620	0	398	0	101	0	385	2,738	29,917	37,159
Mbeya Rural	717	242	0	118	0	0	121	0	48,718	49,916
Kyela	1,021	1,854	0	88	279	0	3,622	254	25,545	32,663
Rungwe	1,027	3,239	232	230	0	0	1,504	579	58,111	64,922
Ileje	943	1,337	506	65	65	0	0	128	22,203	25,246
Mbozi'	465	351	0	358	530	179	526	318	98,593	101,321
Mbarali	603	87	0	0	620	87	0	105	31,526	33,028
Mbeya Urban	612	45	41	17	36	0	361	22	5,787	6,921
Total	9,009	7,153	1,177	876	1,631	266	6,520	4,145	320,399	351,176

8.1.1g AGRO PROCESSING: Number of Crop Growing Households By By-Product During 2002/03 Agriculture Year and District

District	By Product										
	Bran	Cake	Husk	Juice	Fiber	Pulp	Oil	Shell	No by-product	Other	Total
Chunya	16,615	0	854	0	0	655	0	592	18,256	187	37,159
Mbeya Rural	39,834	359	0	0	0	0	0	352	9,370	0	49,916
Kyela	15,340	463	16,283	0	0	436	0	70	71	0	32,663
Rungwe	62,097	114	1,023	0	230	579	114	0	764	0	64,922
Ileje	23,575	0	63	61	0	64	0	319	1,099	64	25,246
Mbozi'	31,427	1,584	1,612	179	171	23,716	0	2,681	39,951	0	101,321
Mbarali	23,192	0	4,319	0	0	0	0	448	5,069	0	33,028
Mbeya Urban	6,364	23	0	0	0	0	0	47	487	0	6,921
Total	218,445	2,543	24,154	240	400	25,451	114	4,510	75,068	251	351,176

MARKETING

10.1 Number of Crop Producing Households Reporting Selling Agricultural Products During 2003/04 By District

District	Number of Households that Sold		Number of Households that Did not Sell		Total
	Number	%	Number	%	Number
Chunya	16,475	43	21,786	57	38,262
Mbeya Rural	45,557	85	8,308	15	53,865
Kyela	29,091	85	5,101	15	34,192
Rungwe	60,729	90	6,594	10	67,323
Ileje	21,649	84	4,170	16	25,819
Mbozi'	91,048	88	12,439	12	103,486
Mbarali	22,433	53	20,285	47	42,718
Mbeya Urban	5,498	77	1,682	23	7,180
Total	292,480	78	80,364	22	372,844

10.2 MARETING: Number of Crop Producing Households Reporting Not Selling Agricultural Products During 2003/04 By Reason for Not Selling Crops By District

District	Main Reasons for Not Selling Crops									
	Price Too Low	Production Insufficient to Sell	Market Too Far	Farmers Association Problems	Co-operative Problems	Trade Union Problems	Government Regulatory Board Problems	Other	Not applicable	Total
Chunya	1,645	20,391	292	84	0	0	0	712	14,327	37,450
Mbeya Rural	1,570	11,315	121	829	237	0	0	243	38,842	53,157
Kyela	173	5,561	85	0	0	0	0	280	25,454	31,552
Rungwe	1,042	8,405	230	0	229	0	0	231	50,075	60,213
Ileje	254	4,874	61	0	0	0	0	436	17,152	22,777
Mbozi'	2,768	23,945	0	0	279	496	179	179	73,113	100,958
Mbarali	1,812	19,190	0	0	0	105	0	2,257	18,147	41,511
Mbeya Urban	171	1,854	0	0	0	0	46	23	4,978	7,072
Total	9,434	95,536	789	913	745	601	225	4,361	242,088	354,691

10.3 Proportion of Households Reporting Not Selling Agricultural Products During 2003/04 By Reason for Not Selling Crops By District

District	Main Reasons for Not Selling Crops									
	Price Too Low	Production Insufficient to Sell	Market Too Far	Farmers Association Problems	Co-operative Problems	Trade Union Problems	Government Regulatory Board Problems	Other	Not applicable	Total
Chunya	1,645	20,391	292	84	0	0	0	712	14,327	37,450
Mbeya Rural	1,570	11,315	121	829	237	0	0	243	38,842	53,157
Kyela	173	5,561	85	0	0	0	0	280	25,454	31,552
Rungwe	1,042	8,405	230	0	229	0	0	231	50,075	60,213
Ileje	254	4,874	61	0	0	0	0	436	17,152	22,777
Mbozi'	2,768	23,945	0	0	279	496	179	179	73,113	100,958
Mbarali	1,812	19,190	0	0	0	105	0	2,257	18,147	41,511
Mbeya Urban	171	1,854	0	0	0	0	46	23	4,978	7,072
Total	9,434	95,536	789	913	745	601	225	4,361	242,088	354,691

IRRIGATION/ EROSION CONTROL

Table 11.1: Number and Percent of Crop Growing Households Reporting of Practicing Irrigation During 2002/03 Agriculture Year By District

District	Households Practicing Irrigation		Households not Practicing Irrigation		Total
	Number of Household	%	Number of Household	%	Number of Household
Chunya	842	2	37,420	98	38,262
Mbeya Rural	5,597	10	48,268	90	53,865
Kyela	176	1	34,016	99	34,192
Rungwe	1,565	2	65,758	98	67,323
Ileje	4,193	16	21,625	84	25,819
Mbozi'	11,757	11	91,730	89	103,486
Mbarali	24,978	58	17,739	42	42,718
Mbeya Urban	802	11	6,378	89	7,180
Total	49,911	13	322,934	87	372,844

11.2 IRRIGATION: Area of Irrigated and Non Irrigatable (ha) Land By District

District	Irrigated Area	Area Irrigated Land this Year	%
Chunya	368	284	77
Mbeya Rural	2,767	1,810	65
Kyela	71	53	75
Rungwe	784	354	45
Ileje	1,354	1,237	91
Mbozi'	8,143	4,680	57
Mbarali	31,671	24,649	78
Mbeya Urban	271	224	83
Total	45,429	33,291	73

11.3: IRRIGATION: Number of Households Using Irrigation By Source of Irrigation Water During 2003/04 Agricultural Year By District

District	Source of Irrigation Water					Total
	River	Dam	Well	Canal	Pipe water	
Chunya	355	0	487	0	0	842
Mbeya Rural	5,237	0	0	359	0	5,597
Kyela	88	0	0	89	0	176
Rungwe	1,104	116	345	0	0	1,565
Ileje	2,020	0	451	1,661	61	4,193
Mbozi'	8,997	173	995	1,592	0	11,757
Mbarali	15,394	0	317	9,057	210	24,978
Mbeya Urban	348	9	0	353	92	802
Total	33,543	298	2,595	13,112	362	49,911
%	67	1	5	26	1	100

11.4: IRRIGATION: Number of Households Using Irrigation By Method of Irrigation of Obtaining Water By District

District	Method of Obtaining Water					Total
	Gravity	Hand Bucket	Hand Pump	Motor Pump	Other	
Chunya	181	336	243	81	0	842
Mbeya Rural	5,238	359	0	0	0	5,597
Kyela	176	0	0	0	0	176
Rungwe	912	424	115	115	0	1,565
Ileje	1,131	3,001	0	0	61	4,193
Mbozi'	6,207	5,371	0	179	0	11,757
Mbarali	24,143	730	0	0	105	24,978
Mbeya Urban	559	198	0	9	36	802
Total	38,547	10,420	358	384	202	49,911

11.5: IRRIGATION: Number of Households Using Irrigation By Method of Irrigation Application By District

District	Method of Application				Total
	Flood	Sprinkler	Water Hose	Bucket / Watering Can	
Chunya	100	0	162	580	842
Mbeya Rural	5,238	0	0	359	5,597
Kyela	176	0	0	0	176
Rungwe	1,026	0	0	538	1,565
Ileje	1,069	0	61	3,064	4,193
Mbozi'	5,498	350	0	5,909	11,757
Mbarali	24,038	0	105	835	24,978
Mbeya Urban	547	9	69	177	802
Total	37,693	359	397	11,462	49,911

11.6: IRRIGATION: Number of Households With Erosion Control/Water Harvesting Facilities on their Land By District

District	Presence of erosion Control/Water Harvesting Facilities				
	Have facility		Does Not Have Facility		Total
	Number	%	Number	%	
Chunya	731	2	37,531	98	38,262
Mbeya Rural	12,569	23	41,296	77	53,865
Kyela	82	0	34,110	100	34,192
Rungwe	16,792	25	50,531	75	67,323
Ileje	7,881	31	17,937	69	25,819
Mbozi'	21,471	21	82,016	79	103,486
Mbarali	541	1	42,177	99	42,718
Mbeya Urban	1,473	21	5,707	79	7,180
Total	61,540	17	311,304	83	372,844

11.7 EROSION CONTROL: Number of Erosion Control Harvesting Structures By Type and District

District	Type of Erosion Control								Total
	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Dam	
Chunya	0	384	571	289	3,373	2,371	386	0	7,374
Mbeya Rural	1,214	11,500	113	602	6,403	21,158	9,079	0	50,068
Kyela	0	0	0	0	0	0	82	0	82
Rungwe	7,587	86,553		113	4,284	38,949	0	0	137,487
Ileje	3,757	42,977	321	5,399	7,180	16,145	15,617	127	91,522
Mbozi'	0	53,584	1,423	1,345	3,544	14,340	18,976	0	93,213
Mbarali	0	1,129	0	0	106	0	197	0	1,432
Mbeya Urban	225	2,864	0	356	3,292	2,031	206	0	8,974
Total	12,784	198,991	2,428	8,103	28,183	94,995	44,542	127	390,151

ACCESS TO FARM INPUTS AND IMPLEMENTS

Table 12.1.1 ACCESS TO INPUTS: Number of Agricultural Households Using Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using Chemical Fertilizers		Number of Agricultural Households NOT Using Chemical Fertilizers		Total
	Number	%	Number	%	Number
Chunya	6,425	17	31,837	83	38,262
Mbeya Rur	22,493	42	31,372	58	53,865
Kyela	1,278	4	32,914	96	34,192
Rungwe	16,624	25	50,700	75	67,323
Ileje	10,803	42	15,016	58	25,819
Mbozi	54,690	53	48,796	47	103,486
Mbarali	3,206	8	39,512	92	42,718
Mbeya Urb	4,834	67	2,346	33	7,180
Total	120,352	32	252,492	68	372,844

Table 12.1.2 ACCESS TO INPUTS: Number of Agricultural Households Using Farm Yard Manure by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using Farm Yard Manure		Number of Agricultural Households NOT Using Farm Yard Manure		Total
	Number	%	Number	%	Number
Chunya	3,198	8	35,064	92	38,262
Mbeya Rur	13,327	25	40,537	75	53,865
Kyela	1,947	6	32,336	94	34,283
Rungwe	36,185	54	31,138	46	67,323
Ileje	13,811	53	12,073	47	25,884
Mbozi	32,105	31	71,381	69	103,486
Mbarali	4,369	10	38,348	90	42,718
Mbeya Urb	2,637	37	4,543	63	7,180
Total	107,580	29	265,421	71	373,000

Table 12.1.3 ACCESS TO INPUTS: Number of Agricultural Households Using COMPOST Manure by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using COMPOST Manure		Number of Agricultural Households NOT Using COMPOST Manure		Total
	Number	%	Number	%	Number
Chunya	1,139	3	37,122	97	38,262
Mbeya Rur	5,433	10	48,432	90	53,865
Kyela	5,284	15	28,907	85	34,192
Rungwe	16,726	25	50,597	75	67,323
Ileje	8,745	34	17,074	66	25,819
Mbozi	18,434	18	85,052	82	103,486
Mbarali	201	0	42,517	100	42,718
Mbeya Urb	361	5	6,819	95	7,180
Total	56,324	15	316,521	85	372,844

Table 12.1.4 ACCESS TO INPUTS: Number of Agricultural Households Using Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using Farm Yard Manure		Number of Agricultural Households NOT Using Farm Yard Manure		Total
	Number	%	Number	%	Number
Chunya	3,198	8	35,064	92	38,262
Mbeya Rur	13,327	25	40,537	75	53,865
Kyela	1,947	6	32,336	94	34,283
Rungwe	36,185	54	31,138	46	67,323
Ileje	13,811	53	12,073	47	25,884
Mbozi	32,105	31	71,381	69	103,486
Mbarali	4,369	10	38,348	90	42,718
Mbeya Urb	2,637	37	4,543	63	7,180
Total	107,580	29	265,421	71	373,000

Table 12.1.5 ACCESS TO INPUTS: Number of Agricultural Households Using Herbicides by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using Herbicides		Number of Agricultural Households NOT Using Herbicides		Total
	Number	%	Number	%	Number
Chunya	101	0	38,160	100	38,262
Mbeya Rur	597	1	53,267	99	53,865
Kyela	10,613	31	23,578	69	34,192
Rungwe	4,795	7	62,528	93	67,323
Ileje	64	0	25,690	100	25,754
Mbozi	9,836	10	93,651	90	103,486
Mbarali	854	2	41,863	98	42,718
Mbeya Urb	144	2	7,036	98	7,180
Total	27,006	7	345,774	93	372,779

Table 12.1.6 ACCESS TO INPUTS: Number of Agricultural Households using Improved Seeds by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using Improved Seeds		Number of Agricultural Households NOT Using Improved Seeds		Total
	Number	%	Number	%	Number
Chunya	4,726	12	33,535	88	38,262
Mbeya Rur	8,760	16	45,104	84	53,865
Kyela	2,230	7	31,962	93	34,192
Rungwe	9,049	13	58,274	87	67,323
Ileje	3,309	13	22,510	87	25,819
Mbozi	14,569	14	88,917	86	103,486
Mbarali	6,815	16	35,903	84	42,718
Mbeya Urb	2,797	39	4,383	61	7,180
Total	52,255	14	320,589	86	372,844

Table 12.1.10 ACCESS TO INPUTS: Number of Agricultural Households and Source of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Secondary Market		Development Project		Crop Buyers		Locally Produced by Household		Neighbour		Other		Not applicable		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	3,117	8	0	0	836	2	101	0	0	0	0	0	0	0	0	0	0	0	34,207	89	38,262
Mbeya R	116	0	0	0	16,006	30	119	0	0	0	121	0	243	0	484	1	0	0	36,775	68	53,865
Kyela	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34,101	100	34,101
Rungwe	0	0	226	0	4,588	7	0	0	115	0	0	0	116	0	0	0	47	0	62,232	92	67,323
Ileje	0	0	0	0	2,361	9	0	0	0	0	0	0	519	2	64	0	0	0	22,875	89	25,819
Mbozi	0	0	0	0	27,484	27	1,433	1	0	0	178	0	0	0	712	1	0	0	73,338	71	103,145
Mbarali	0	0	0	0	974	2	215	1	0	0	0	0	0	0	0	0	112	0	41,417	97	42,718
Mbeya U	0	0	24	0	3,113	43	0	0	0	0	23	0	151	2	47	1	0	0	3,822	53	7,180
Total	3,233	1	250	0	55,363	15	1,868	1	115	0	322	0	1,029	0	1,307	0	159	0	308,765	83	372,412

Table 12.1.11 ACCESS TO INPUTS: Number of Agricultural Households and Source of Herbicides by District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Secondary Market		Crop Buyers		Locally Produced by Household		Neighbour		Other		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	
Chunya	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38,160	100	38,262
Mbeya R	0	0	0	0	597	1	0	0	0	0	0	0	0	0	0	0	0	53,267	99	53,865
Kyela	1,378	4	91	0	8,138	24	176	1	0	0	77	0	600	2	155	0	0	23,578	69	34,192
Rungwe	0	0	2,068	3	2,264	3	0	0	463	1	0	0	0	0	0	0	0	62,528	93	67,323
Ileje	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	0	25,690	100	25,754
Mbozi	0	0	0	0	9,658	9	0	0	178	0	0	0	0	0	0	0	0	93,310	90	103,145
Mbarali	0	0	0	0	854	2	0	0	0	0	0	0	0	0	0	0	0	41,863	98	42,718
Mbeya U	0	0	0	0	127	2	0	0	0	0	17	0	0	0	0	0	0	7,036	98	7,180
Total	1,479	0	2,159	1	21,702	6	176	0	641	0	94	0	600	0	155	0	0	345,433	93	372,438

Table 12.1.13 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	1,779	28	1,510	23	1,602	25	190	3	1,343	21	6,425
Mbeya Rural	1,212	5	2,873	13	6,917	31	6,669	30	4,823	21	22,493
Kyela	70	6	393	31	176	14	410	32	229	18	1,278
Rungwe	5,214	31	1,079	6	4,004	24	3,922	24	2,404	14	16,624
Ileje	2,277	21	2,483	23	4,234	39	1,168	11	641	6	10,803
Mbozi	8,247	15	7,073	13	12,991	24	9,273	17	17,106	31	54,690
Mbarali	299	9	547	17	1,485	46	319	10	555	17	3,206
Mbeya Urban	90	2	946	20	3,555	74	243	5	0	0	4,834
Total	19,189	16	16,904	14	34,965	29	22,193	18	27,101	23	120,352

Table 12.1.14 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	2,762	86	263	8	173	5	0	0	0	0	3,198
Mbeya Rur	12,014	91	843	6	355	3	0	0	0	0	13,211
Kyela	1,767	91	88	4	92	5	0	0	0	0	1,947
Rungwe	34,699	96	603	2	766	2	116	0	0	0	36,185
Ileje	12,924	94	515	4	246	2	126	1	0	0	13,811
Mbozi	28,866	90	1,385	4	1,345	4	351	1	158	0	32,105
Mbarali	4,282	98	0	0	88	2	0	0	0	0	4,369
Mbeya Urb	2,185	83	108	4	344	13	0	0	0	0	2,637
Total	99,499	93	3,804	4	3,408	3	593	1	158	0	107,463

Table 12.1.15 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of COMPOST Manure by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	1,139	100	0	0	0	0	0	0	0	0	1,139
Mbeya Rur	5,433	100	0	0	0	0	0	0	0	0	5,433
Kyela	5,284	100	0	0	0	0	0	0	0	0	5,284
Rungwe	16,335	98	163	1	229	1	0	0	0	0	16,726
Ileje	8,615	99	65	1	0	0	0	0	65	1	8,745
Mbozi	17,051	92	178	1	673	4	176	1	356	2	18,434
Mbarali	113	56	88	44	0	0	0	0	0	0	201
Mbeya Urb	320	89	0	0	41	11	0	0	0	0	361
Total	54,291	96	493	1	943	2	176	0	421	1	56,324

Table 12.1.16 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	1,312	32	988	24	1,055	26	0	0	699	17	4,054
Mbeya Rur	1,329	8	1,659	10	4,983	29	4,784	28	4,336	25	17,090
Rungwe	871	17	305	6	1,463	29	922	18	1,530	30	5,091
Ileje	1,099	37	760	26	701	24	258	9	126	4	2,944
Mbozi	4,423	15	3,700	12	7,352	25	3,688	12	10,644	36	29,807
Mbarali	97	7	0	0	766	59	110	8	328	25	1,301
Mbeya Urb	289	9	834	25	2,071	62	163	5	0	0	3,358
Total	9,422	15	8,246	13	18,392	29	9,926	16	17,662	28	63,646

Table 12.1.17 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Herbicides by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	0	0	101	100	0	0	0	0	0	0	101
Mbeya Rur	0	0	0	0	241	40	237	40	119	20	597
Kyela	1,787	17	845	8	4,185	39	3,249	31	548	5	10,613
Rungwe	1,027	21	347	7	1,462	30	1,611	34	348	7	4,795
Ileje	0	0	0	0	64	100	0	0	0	0	64
Mbozi	1,427	15	1,308	13	1,205	12	1,346	14	4,550	46	9,836
Mbarali	0	0	0	0	421	49	207	24	227	27	854
Mbeya Urb	22	15	83	57	39	27	0	0	0	0	144
Total	4,263	16	2,684	10	7,618	28	6,650	25	5,791	21	27,006

Table 12.1.18 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Improved Seeds by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	2,002	42	682	14	659	14	384	8	999	21	4,726
Mbeya Rur	1,088	12	1,076	12	1,434	16	2,037	23	3,126	36	8,760
Kyela	1,732	78	0	0	0	0	498	22	0	0	2,230
Rungwe	1,329	15	1,083	12	3,367	37	1,264	14	2,007	22	9,049
Ileje	442	13	438	13	1,721	52	64	2	643	19	3,309
Mbozi	1,915	13	3,123	21	2,435	17	1,918	13	5,179	36	14,569
Mbarali	1,173	17	923	14	1,984	29	825	12	1,910	28	6,815
Mbeya Urb	228	8	838	30	1,566	56	118	4	47	2	2,797
Total	9,908	19	8,163	16	13,166	25	7,108	14	13,910	27	52,255

Table 12.1.19 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	8,005	25	18,245	57	903	3	0	0	604	2	2,400	8	0	0	1,681	5	31,837
Mbeya Rur	1,333	4	21,512	69	1,807	6	117	0	1,086	3	5,274	17	121	0	121	0	31,372
Kyela	596	2	22,732	69	73	0	71	0	703	2	8,478	26	0	0	260	1	32,914
Rungwe	2,067	4	40,478	80	462	1	0	0	845	2	1,645	3	0	0	5,202	10	50,700
Ileje	511	3	12,438	83	1,098	7	64	0	194	1	582	4	0	0	129	1	15,016
Mbozi	6,711	14	34,208	70	314	1	0	0	883	2	6,186	13	0	0	494	1	48,796
Mbarali	1,088	3	20,530	52	405	1	0	0	864	2	15,561	39	111	0	953	2	39,512
Mbeya Urb	0	0	2,148	92	41	2	13	1	0	0	96	4	0	0	47	2	2,346
Total	20,312	8	172,291	68	5,103	2	266	0	5,178	2	40,223	16	232	0	8,888	4	252,492

Table 12.1.20 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Farm Yard Manure by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour		Do not Know How to Use		Input is of No Use		Locally Produced by Other		Total		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Chunya	11,456	33	5,188	15	9,240	26	4,924	14	957	3	1,420	4	0	0	1,880	5	35,064
Mbeya Rur	20,708	51	3,242	8	7,329	18	2,270	6	2,825	7	3,440	8	0	0	724	2	40,537
Kyela	3,052	9	1,592	5	13,145	41	3,050	9	977	3	10,259	32	0	0	260	1	32,336
Rungwe	12,979	42	3,978	13	6,424	21	913	3	1,368	4	1,891	6	0	0	3,585	12	31,138
Ileje	6,031	50	1,605	13	2,947	24	194	2	130	1	1,037	9	0	0	128	1	12,073
Mbozi	33,664	47	7,644	11	13,405	19	5,224	7	3,653	5	4,794	7	0	0	2,998	4	71,381
Mbarali	2,350	6	2,788	7	14,937	39	4,746	12	1,997	5	11,097	29	217	1	217	1	38,348
Mbeya Urb	2,368	52	165	4	1,452	32	275	6	202	4	39	1	0	0	43	1	4,543
Total	92,608	35	26,200	10	68,879	26	21,596	8	12,108	5	33,977	13	217	0	9,835	4	265,421

Table 12.1.21 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using COMPOST Manure by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour		Do not Know How to Use		Input is of No Use		Locally Produced by Other		Total		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Chunya	4,978	13	4,742	13	11,780	32	6,472	17	4,779	13	1,581	4	0	0	2,790	8	37,122
Mbeya Rur	4,193	9	2,292	5	17,969	37	1,315	3	18,239	38	2,487	5	121	0	1,817	4	48,432
Kyela	2,247	8	886	3	12,212	42	2,371	8	2,872	10	8,141	28	0	0	178	1	28,907
Rungwe	4,992	10	4,625	9	11,617	23	163	0	21,861	43	1,550	3	0	0	5,789	11	50,597
Ileje	1,147	7	1,082	6	10,648	62	944	6	1,898	11	1,101	6	0	0	254	1	17,074
Mbozi	12,226	14	7,246	9	41,280	49	2,714	3	15,615	18	4,412	5	173	0	1,386	2	85,052
Mbarali	731	2	2,168	5	13,344	31	2,028	5	11,819	28	11,624	27	373	1	430	1	42,517
Mbeya Urb	972	14	150	2	2,552	37	409	6	2,593	38	105	2	0	0	37	1	6,819
Total	31,486	10	23,191	7	121,402	38	16,415	5	79,676	25	31,001	10	667	0	12,682	4	316,521

Table 12.1.22 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Re		Do not Know How to Input is of No Use		Locally Produced by Other		Total				
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Chunya	10,827	32	19,963	58	579	2	170	0	847	2	1,139	3	202	1	479	1	34,207
Mbeya Rur	1,576	4	26,579	72	2,653	7	242	1	1,784	5	3,578	10	0	0	364	1	36,775
Kyela	3,676	11	23,188	68	676	2	0	0	2,785	8	3,538	10	0	0	238	1	34,101
Rungwe	3,114	5	50,317	81	803	1	0	0	1,302	2	1,139	2	0	0	5,557	9	62,232
Ileje	3,069	13	15,511	68	1,032	5	59	0	838	4	2,109	9	0	0	257	1	22,875
Mbozi	6,531	9	53,556	73	1,138	2	0	0	1,377	2	10,226	14	0	0	851	1	73,679
Mbarali	849	2	16,825	41	1,175	3	110	0	4,299	10	17,086	41	111	0	961	2	41,417
Mbeya Urb	0	0	3,198	84	73	2	22	1	65	2	440	12	0	0	24	1	3,822
Total	29,642	10	209,137	68	8,128	3	604	0	13,297	4	39,254	13	313	0	8,731	3	309,107

Table 12.1.23 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Herbicides by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Re		Do not Know How to Input is of No Use		Locally Produced by Other		Total				
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Chunya	11,896	31	23,459	61	787	2	76	0	732	2	819	2	101	0	292	1	38,160
Mbeya Rur	1,692	3	36,129	68	3,127	6	0	0	4,174	8	7,422	14	0	0	723	1	53,267
Kyela	93	0	21,532	91	344	1	0	0	870	4	409	2	82	0	249	1	23,578
Rungwe	3,109	5	49,309	79	578	1	0	0	2,490	4	1,139	2	116	0	5,788	9	62,528
Ileje	4,206	16	16,228	63	1,228	5	59	0	1,212	5	2,628	10	0	0	129	1	25,690
Mbozi	8,481	9	69,552	74	1,243	1	0	0	3,107	3	9,917	11	501	1	850	1	93,651
Mbarali	623	1	15,838	38	1,280	3	0	0	7,007	17	15,937	38	111	0	1,066	3	41,863
Mbeya Urb	115	2	6,016	86	78	1	20	0	218	3	542	8	0	0	47	1	7,036
Total	30,216	9	238,064	69	8,663	3	155	0	19,809	6	38,813	11	910	0	9,144	3	345,774

Table 12.1.24 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Improved Seeds by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour F		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	10,314	31	21,343	64	591	2	76	0	292	1	525	2	99	0	296	1	33,535
Mbeya Rur	5,695	13	35,688	79	2,173	5	356	1	360	1	711	2	0	0	121	0	45,104
Kyela	23,168	72	5,868	18	257	1	0	0	645	2	1,938	6	0	0	85	0	31,962
Rungwe	26,716	46	24,509	42	624	1	0	0	341	1	643	1	0	0	5,440	9	58,274
Ileje	4,350	19	15,874	71	1,163	5	0	0	195	1	672	3	192	1	64	0	22,510
Mbozi	14,468	16	69,690	78	1,601	2	0	0	707	1	1,601	2	0	0	851	1	88,917
Mbarali	9,265	26	18,492	52	968	3	0	0	1,093	3	5,636	16	111	0	337	1	35,903
Mbeya Urb	71	2	3,940	90	0	0	0	0	0	0	302	7	0	0	71	2	4,383
Total	94,046	29	195,404	61	7,378	2	432	0	3,633	1	12,028	4	402	0	7,266	2	320,589

Table 12.1.25 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total
	Number	%	Number	%	Number	%	Number	%	Number
Chunya	2,062	32	3,369	52	994	15	0	0	6,425
Mbeya Rur	2,517	11	15,908	71	3,605	16	463	2	22,493
Kyela	212	17	818	64	247	19	0	0	1,278
Rungwe	4,503	27	10,730	65	1,278	8	113	1	16,624
Ileje	2,308	21	7,480	69	696	6	318	3	10,803
Mbozi	17,844	33	33,467	61	2,430	4	949	2	54,690
Mbarali	1,063	33	1,418	44	612	19	113	4	3,206
Mbeya Urb	838	17	3,016	62	846	18	134	3	4,834
Total	31,348	26	76,206	63	10,709	9	2,090	2	120,352

Table 12.1.26 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total
	Number	%	Number	%	Number	%	Number	%	Number
Chunya	1,163	36	1,490	47	544	17	0	0	3,198
Mbeya Rur	2,997	23	8,888	67	1,326	10	0	0	13,211
Kyela	1,236	63	626	32	85	4	0	0	1,947
Rungwe	17,601	49	17,175	47	1,293	4	116	0	36,185
Ileje	4,677	34	7,793	56	1,341	10	0	0	13,811
Mbozi	13,144	41	17,417	54	1,372	4	172	1	32,105
Mbarali	1,614	37	1,612	37	1,031	24	112	3	4,369
Mbeya Urb	766	29	1,505	57	353	13	13	1	2,637
Total	43,198	40	56,507	53	7,345	7	413	0	107,463

Table 12.1.27 ACCESS TO INPUTS: Number of Agricultural Households and Quality of COMPOST Manure by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total
	Number	%	Number	%	Number	%	Number	%	Number
Chunya	0	0	77	7	1,062	93	0	0	1,139
Mbeya Rur	0	0	3,616	67	1,816	33	0	0	5,433
Kyela	0	0	5,248	99	37	1	0	0	5,284
Rungwe	4,969	30	11,416	68	341	2	0	0	16,726
Ileje	1,987	23	5,859	67	898	10	0	0	8,745
Mbozi	7,392	40	9,858	53	1,007	5	177	1	18,434
Mbarali	0	0	201	100	0	0	0	0	201
Mbeya Urb	81	22	154	43	127	35	0	0	361
Total	14,428	26	36,429	65	5,289	9	177	0	56,324

Table 12.1.28 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total
	Number	%	Number	%	Number	%	Number	%	Number
Chunya	459	11	3,296	81	299	7	0	0	4,054
Mbeya Rur	2,865	17	12,559	73	1,319	8	347	2	17,090
Rungwe	1,699	33	3,393	67	0	0	0	0	5,091
Ileje	316	11	2,371	81	257	9	0	0	2,944
Mbozi	9,563	32	19,212	64	715	2	317	1	29,807
Mbarali	326	25	766	59	209	16	0	0	1,301
Mbeya Urb	289	9	2,660	79	347	10	62	2	3,358
Total	15,517	24	44,257	70	3,146	5	727	1	63,646

Table 12.1.29 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Improved Seeds by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Does not Work		Total
	Number	%	Number	%	Number	%	Number	%	Number
Chunya	1,024	22	3,106	66	596	13	0	0	4,726
Mbeya Rur	1,807	21	6,469	74	485	6	0	0	8,760
Kyela	266	12	1,964	88	0	0	0	0	2,230
Rungwe	4,623	51	4,313	48	113	1	0	0	9,049
Ileje	1,140	34	1,980	60	188	6	0	0	3,309
Mbozi	7,010	48	7,380	51	179	1	0	0	14,569
Mbarali	3,986	58	2,099	31	730	11	0	0	6,815
Mbeya Urb	897	32	1,678	60	204	7	18	1	2,797
Total	20,753	40	28,990	55	2,494	5	18	0	52,255

AGRICULTURAL CREDIT

13.1a AGRICULTURE CREDIT: Number of Households Receiving Credit By Reason for Not Using Credit By District

District	Reason for Not Using Credit									
	Not needed	Not available	Did not want to go into debt	Interest rate/cost too high	Did not know how to get credit	Difficult bureaucracy procedure	Credit granted too late	Other	Don't know about credit	Total
Chunya	2,017	11,208	2,616	1,027	7,464	437	182	446	7,177	32,575
Mbeya Rural	1,313	5,980	6,828	2,399	20,447	364	717	364	11,634	50,046
Kyela	958	6,853	4,552	1,413	8,929	1,068	90	122	6,960	30,945
Rungwe	813	13,668	5,743	1,743	20,189	460	0	809	19,242	62,667
Ileje	608	9,396	885	323	7,170	1,088	0	0	6,092	25,563
Mbozi'	3,998	29,423	11,311	3,854	28,221	2,855	1,746	171	20,835	102,414
Mbarali	1,719	5,263	11,690	2,936	12,674	978	429	0	5,058	40,746
Mbeya Urban	452	600	1,918	536	2,276	62	18	43	841	6,747
Total	11,878	82,391	45,545	14,231	107,370	7,312	3,183	1,954	77,839	351,703

13.1b AGRICULTURE CREDIT: Number of Credits Received By Main Purpose of Credit and District

District	Credit Use								
	Labour	Seeds	Fertilizers	Agro-chemicals	Tools / Equip	Irrigation Stru	Livestock	Other	Total Credits
Chunya	1,571	2,079	3,295	3,097	1,571	487	0	354	12,453
Mbeya Rural	1,530	705	1,679	1,072	474	0	601	242	6,303
Kyela	1,417	1,473	0	185	254	0	0	184	3,514
Rungwe	116	115	4,426	1,456	346	0	0	116	6,575
Ileje	64	192	0	0	64	0	0	64	384
Mbozi'	0	179	357	178	358	0	0	0	1,072
Mbarali	1,445	323	106	97	599	0	0	722	3,292
Mbeya Urban	57	86	386	211	0	0	24	0	764
Total Credits	6,200	5,153	10,249	6,295	3,667	487	625	1,682	34,358

13.2a AGRICULTURE CREDIT: Number of Households Receiving Credit By Sex of Household Member Receiving Credit By District

District	Male		Female		Total
	Number	%	Number	%	Number
Chunya	5,221	92	466	8	5,687
Mbeya Rural	2,152	56	1,666	44	3,818
Kyela	2,709	83	537	17	3,246
Rungwe	3,732	80	924	20	4,657
Ileje	64	25	192	75	256
Mbozi'	1,072	100	0	0	1,072
Mbarali	1,565	79	407	21	1,971
Mbeya Urban	371	86	62	14	433
Total	16,887	80	4,254	20	21,141

13.2 AGRICULTURE CREDIT: Number of Households Receiving Credit By Source of Credit By District

District	Source of Credit								
	Family, Friend and Relative	Commercial Bank	Co-operative	Saving & Credit Society	Trader / Trade Store	Private Individual	Religious Organisation / NGO / Project	Other	Total
Chunya	1,884	97	3,119	288	298	0	0	0	5,687
Mbeya Rural	1,663	116	243	953	243	237	364	0	3,818
Kyela	1,538	0	93	0	810	717	88	0	3,246
Rungwe	459	0	811	0	1,390	0	464	1,533	4,657
Ileje	192	0	0	64	0	0	0	0	256
Mbozi'	715	0	0	0	178	179	0	0	1,072
Mbarali	724	0	514	310	212	212	0	0	1,971
Mbeya Urban	168	17	36	41	172	0	0	0	433
Total	7,343	230	4,816	1,656	3,303	1,345	915	1,533	21,141

TREE FARMING AND AGROFORESTRY

14 ON FARM TREE PLANTING: Number of Planted Trees By Species and District, During the agricultural Year 2002/03- Mbeya Region

District	Senna Spp	Gravellis	Azalia Quanzensis	Acacia Spp	Pinus Spp	Eucalyptus Spp	Cyprus Spp	Melicia excelsa
Chunya	31	5	0	0	0	0	0	0
Mbeya Rural	0	3	0	0	11,629	27,845	6,159	
Kyela	0	0	0	0	0	3	0	14
Rungwe	0	16	0	0	12,840	16,029	14,276	103
Ileje	435	200	0	0	3,785	8,186	59,748	41
Mbozi'	746	7	0	0	6,657	3,725	21,254	60
Mbarali	101	0	0	0	0	4	0	0
Mbeya Urban	0	0	0	0	2	28,812	13	0
Total	1,313	231	0	0	34,913	84,604	101,450	218

Cont...FARM TREE PLANTING: Number of Planted Trees By Species and District, During the agricultural Year 2002/03- Mbeya Region

Casurina Equisetifolia	Terminalia Ivorensis	Leucena Spp	Azadritachta Spp	Jakaranda Spp	Albizia Spp	Sesbania Spp	Moringa Spp
0	0		14	0	0	0	10
0	0		0	0	0	0	0
0	0		0	0	0	0	0
248	0	2	0	11	0	0	0
0	0		17	0	7		0
0	0		31	0	0	7	0
0	5		0	0	0	0	0
0		700	10	0	0	0	0
248	5	702	72	11	7	7	10

14.2 TREE FARMING: Number of Households with Planted Trees on their Land and Number of Trees by Planting Location and District

District	Where Planted							
	Mostly on Field / Plot Boundaries		Mostly Scattered in Field		Mostly in Plantation / Coppice		Total	
	Number of Households	Number of Trees	Number of Households	Number of Trees	Number of Households	Number of Trees	Number of Households	Number of Trees
Chunya	9	52	1	8	0		10	60
Mbeya Rural	11	1,214	2	33	99	44,389	112	45,636
Kyela	3	17	0		0		3	17
Rungwe	19	688	5	2,690	72	40,147	96	43,525
Ileje	27	3,149	13	153	83	69,117	123	72,419
Mbozi'	32	3,375	5	3,272	41	25,740	78	32,387
Mbarali	7	54	3	56	0		10	110
Mbeya Urban	32	2,359	7	1,304	63	25,864	102	29,527
Total	140	10,908	36	7,516	358	205,257	534	223,681

14.3 TREE FARMING: Number of Responses by Main Use of Trees By District for the Agricultural Year 2002/03

District	Main Use							Total
	Planks / Timber	Poles	Charcoal	Fuel for Wood	Shade	Medicinal	Other	
Chunya	0	0	0	7	3	0	1	11
Mbeya Rural	50	12	0	78	1	0	2	143
Kyela	3	0	0	0	0	0	0	3
Rungwe	46	4	1	63	2	0	0	116
Ileje	108	8	0	32	2	2	5	157
Mbozi'	47	25	0	15	5	0	2	94
Mbarali	0	3	0	5	2	0	0	10
Mbeya Urban	5	3	0	97	3	0	0	108
Total	259	55	1	297	18	2	10	642

14.4 TREE FARMING: Number of Households By Distance to Community Planted Forest (Km) By District

District	Distance to Community Planted Forest (km)						Total
	0-9	1-19	20-29	30-39	40-49	60+	
Chunya	2,544	555	0	0	95	95	3,290
Mbeya Rural	9,043	8,226	5,058	4,196	1,323	1,318	29,164
Rungwe	5,669	3,897	3,449	348	1,274	1,159	15,797
Ileje	4,481	2,570	2,704	2,121	1,166	1,547	14,588
Mbozi'	7,835	3,742	5,775	3,187	949	1,807	23,294
Mbarali	0	0	109	0	0	0	109
Mbeya Urban	582	754	1,269	495	22	380	3,502
Total	30,154	19,744	18,364	10,347	4,830	6,305	89,744

14.5 TREE FARMING: Second Use of Trees By District

District	Second Use							Total
	Planks / Timber	Poles	Charcoal	Fuel for Wood	Shade	Medicinal	Other	
Chunya	0	4	0	2	2	2	1	11
Mbeya Rural	7	87	3	41	3	0	2	143
Kyela	0	1	0	2	0	0	0	3
Rungwe	22	42	1	49	2	0	0	116
Ileje	12	61	1	72	5	2	4	157
Mbozi'	13	37	0	33	7	4	0	94
Mbarali	0	2	0	2	5	0	0	9
Mbeya Urban	3	81	0	8	1	2	13	108
Total	57	315	5	209	25	10	20	641

CROP EXTENSION

15.1 CROP EXTENSION" Number of Households Receiving Extension Messages By District

District	Households Receiving Extension Advice		Households Not Receiving Extension Advice		Total
	Number	%	Number	%	
Chunya	35,124	92	3,138	8	38,262
Mbeya Rural	36,515	68	17,350	32	53,865
Kyela	2,699	8	31,493	92	34,192
Rungwe	19,459	29	47,864	71	67,323
Ileje	8,976	35	16,843	65	25,819
Mbozi'	40,558	39	62,928	61	103,486
Mbarali	5,134	12	37,583	88	42,718
Mbeya Urban	5,354	75	1,827	25	7,180
Total	153,818	41	219,026	59	372,844

15.2 CROP EXTENSION: Number of Households By Quality of Extension Services By District

District	Quality of service										Total
	Very Good		Good		Average		Poor		No Good		
	Number	%	Number	%	Number	%	Number	%	Number	%	
Chunya	2,780	8	20,898	60	10,217	29	941	3	95	0	34,931
Mbeya Rural	3,937	11	28,761	79	3,338	9	243	1	0	0	36,278
Kyela	501	20	1,457	57	486	19	90	4	0	0	2,535
Rungwe	3,001	15	14,960	77	1,498	8	0	0	0	0	19,459
Ileje	1,673	19	4,876	56	1,846	21	324	4	65	1	8,783
Mbozi'	6,712	17	29,111	72	4,417	11	175	0	143	0	40,558
Mbarali	859	17	3,248	63	921	18	106	2	0	0	5,134
Mbeya Urban	390	7	4,327	81	543	10	70	1	0	0	5,330
Total	19,852	13	107,638	70	23,266	15	1,949	1	303	0	153,008

15.3 EXTENSION MESSAGES: Number of Households By Source of Extension Messages By District

District	Source of Crop Extension												Total
	Government		NGO / Development Project		Cooperative		Large Scale Farm		Other		Not applicable		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Chunya	34,037	98	0	0	659	2	0	0	176	1	0	0	34,873
Mbeya Rural	27,295	76	2,411	7	590	2	1,309	4	4,061	11	486	1	36,151
Kyela	1,929	76	171	7	0	0	263	10	173	7	0	0	2,535
Rungwe	18,887	97	228	1	0	0	114	1	0	0	229	1	19,459
Ileje	7,497	84	961	11	130	1	129	1	259	3	0	0	8,976
Mbozi'	29,693	73	1,582	4	179	0	3,113	8	3,341	8	2,650	7	40,558
Mbarali	4,620	90	411	8	0	0	103	2	0	0	0	0	5,134
Mbeya Urban	4,360	82	398	8	19	0	496	9	0	0	20	0	5,292
Total	128,318	84	6,162	4	1,577	1	5,527	4	8,010	5	3,385	2	152,979

15.4 EXTENSION MESSAGES: Number of Households By Receiving Advice on Plant Spacing By Source of Messages By District

District	Spacing						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	33,679	0	563	0	176	0	34,419
Mbeya Rural	27,058	2,048	472	1,072	2,877	486	34,014
Kyela	950	0	0	93	0	0	1,043
Rungwe	17,079	228	0	114	0	229	17,650
Ileje	6,462	251	65	64	64	0	6,906
Mbozi'	27,567	1,408	179	2,754	2,455	2,650	37,015
Mbarali	3,984	302	0	103	0	0	4,389
Mbeya Urban	3,409	354	19	379	0	20	4,181
Total	120,188	4,592	1,298	4,580	5,573	3,385	139,617

15.5 EXTENSION MESSAGES: Number of Households By Receiving Advice on Agrochemicals By Source of Messages By District

District	Use of Agrochemicals						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	16,734	500	1,055	0	183	95	18,566
Mbeya Rural	19,707	2,052	835	1,088	1,906	243	25,830
Kyela	979	0	0	169	173	0	1,321
Rungwe	9,631	573	0	114	113	576	11,007
Ileje	2,885	1,213	65	320	193	63	4,740
Mbozi'	16,203	2,116	528	1,244	1,597	5,796	27,483
Mbarali	981	0	109	103	0	204	1,398
Mbeya Urban	2,775	743	0	186	36	0	3,740
Total	69,895	7,197	2,592	3,224	4,200	6,976	94,085

15.6 EXTENSION MESSAGES: Number of Households By Receiving Advice on Erosion Control By Source of Messages By District

District	Erosion Control						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	15,346	684	964	76	0	0	17,070
Mbeya Rural	15,276	3,514	0	1,082	1,200	972	22,044
Kyela	85	0	0	0	0	0	85
Rungwe	12,929	116	0	230	0	455	13,730
Ileje	4,620	1,220	65	192	259	64	6,421
Mbozi'	10,120	4,264	179	1,422	834	7,434	24,253
Mbarali	332	111	0	0	0	313	757
Mbeya Urban	1,822	292	21	112	0	66	2,312
Total	60,530	10,201	1,229	3,113	2,294	9,304	86,671

15.7 EXTENSION MESSAGES: Number of Households By Receiving Advice on Organic Fertilizers Used By Source of Messages By District

District	Organic Fertilizer Use						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	19,220	557	583	0	0	188	20,549
Mbeya Rural	17,903	3,025	599	1,211	3,598	486	26,821
Kyela	461	93	0	85	0	0	639
Rungwe	16,825	0	0	114	0	113	17,052
Ileje	5,016	1,528	130	514	129	128	7,445
Mbozi'	17,161	3,199	178	2,775	887	5,736	29,935
Mbarali	946	111	0	109	0	207	1,373
Mbeya Urban	3,312	144	21	287	19	20	3,803
Total	80,842	8,658	1,511	5,094	4,633	6,877	107,616

15.8 EXTENSION MESSAGES: Number of Households By Receiving Advice on Inorganic Fertilizers Used By Source of Messages By District

District	Inorganic Fertilizer Use						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	14,408	380	1,410	0	0	94	16,292
Mbeya Rural	20,189	1,929	1,079	1,685	3,218	607	28,707
Kyela	167	0	0	178	0	0	345
Rungwe	13,508	229	0	227	0	344	14,307
Ileje	5,185	503	194	0	129	64	6,075
Mbozi'	20,826	3,178	357	2,618	3,478	3,045	33,502
Mbarali	969	109	109	111	0	425	1,724
Mbeya Urban	2,919	1,101	18	547	0	22	4,607
Total	78,171	7,429	3,168	5,366	6,825	4,600	105,559

15.9 EXTENSION MESSAGES: Number of Households By Receiving Advice on Use of Improved Seeds By Source of Messages By District

District	Use of Improved Seed						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	19,630	98	1,329	0	0	94	21,151
Mbeya Rural	21,280	2,290	474	1,080	2,267	607	27,998
Kyela	249	90	0	93	0	0	433
Rungwe	12,318	0	0	114	0	343	12,775
Ileje	4,870	380	194	0	194	0	5,638
Mbozi'	16,387	3,356	535	709	358	4,497	25,842
Mbarali	1,789	423	213	209	0	112	2,745
Mbeya Urban	2,628	811	59	513	0	0	4,011
Total	79,151	7,448	2,803	2,719	2,819	5,652	100,592

15.10 EXTENSION MESSAGES: Number of Households By Receiving Advice on Mechanization/LSF By

District	Mechanisation / LST						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	5,809	95	0	0	0	95	5,998
Mbeya Rural	5,276	121	0	120	0	1,457	6,975
Kyela	91	0	0	0	0	0	91
Rungwe	1,254	0	0	0	0	459	1,713
Ileje	374	123	0	0	0	320	817
Mbozi'	1,180	1,358	0	143	171	12,394	15,246
Mbarali	312	97	109	111	0	106	736
Mbeya Urban	641	45	0	46	0	118	851
Total	14,938	1,840	109	420	171	14,949	32,427

15.11 EXTENSION MESSAGES: Number of Households By Receiving Advice on Use of Irrigation Technology By Source of Messages By District

District	Irrigation Technology						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	8,585	304	289	0	0	76	9,254
Mbeya Rural	9,014	243	121	235	463	1,093	11,170
Kyela	0	0	0	0	0	0	0
Rungwe	2,567	229	0	0	0	887	3,683
Ileje	1,156	764	0	192	64	189	2,365
Mbozi'	3,959	1,055	351	1,732	492	13,154	20,743
Mbarali	2,517	0	111	0	0	98	2,725
Mbeya Urban	1,437	112	29	134	43	83	1,838
Total	29,233	2,707	902	2,294	1,061	15,580	51,778

15.12 EXTENSION MESSAGES: Number of Households By Receiving Advice on Crop Storage By Source of Messages By District

District	Crop Storage						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	33,273	401	96	95	0	101	33,967
Mbeya Rural	19,330	1,203	715	1,058	4,197	729	27,232
Kyela	428	0	0	0	0	0	428
Rungwe	10,802	458	0	114	0	346	11,721
Ileje	4,734	767	65	258	259	0	6,083
Mbozi'	14,061	2,127	357	4,073	4,128	6,106	30,853
Mbarali	824	111	221	418	0	0	1,574
Mbeya Urban	2,777	93	0	126	0	37	3,034
Total	86,231	5,161	1,454	6,142	8,584	7,319	114,891

15.13 EXTENSION MESSAGES: Number of Households By Receiving Advice on Vermin Control By Source of Messages By District

District	Vermin Control						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	25,730	203	340	0	0	0	26,273
Mbeya Rural	8,290	121	0	579	0	1,214	10,206
Kyela	91	0	0	0	0	0	91
Rungwe	5,187	345	0	109	229	230	6,100
Ileje	1,660	0	64	449	0	637	2,810
Mbozi'	1,675	290	0	3,921	534	14,042	20,461
Mbarali	422	0	0	0	0	98	519
Mbeya Urban	954	67	0	155	43	99	1,320
Total	44,010	1,026	404	5,214	807	16,320	67,781

15.14 EXTENSION MESSAGES: Number of Households By Receiving Advice on agro-Processing By Source of Messages By District

District	Agro-progressing						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	27,498	279	193	0	0	94	28,063
Mbeya Rural	15,239	1,920	836	1,062	3,358	966	23,381
Kyela	0	0	0	0	0	0	0
Rungwe	5,802	113	0	0	0	462	6,377
Ileje	2,752	1,153	130	252	64	0	4,351
Mbozi'	2,447	1,408	321	4,634	5,278	10,987	25,075
Mbarali	519	0	111	0	0	98	728
Mbeya Urban	1,383	232	0	308	0	37	1,959
Total	55,639	5,104	1,591	6,256	8,700	12,643	89,934

15.15 EXTENSION MESSAGES: Number of Households By Receiving Advice on Afro-Forestry By Source of Messages By District

District	Agro-Forestry						Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	8,685	101	268	0	0	101	9,156
Mbeya Rural	8,148	1,092	0	605	956	1,214	12,016
Kyela	0	89	0	0	0	0	89
Rungwe	7,309	343	0	0	0	346	7,997
Ileje	2,366	893	0	128	257	0	3,644
Mbozi'	4,783	2,223	0	534	0	11,451	18,991
Mbarali	0	0	109	0	0	98	207
Mbeya Urban	2,118	86	12	221	19	20	2,475
Total	33,409	4,825	390	1,488	1,232	13,230	54,574

15.16 EXTENSION MESSAGES: Number of Households By Receiving Advice on Beekeeping By Source of Messages By District

District	Beekeeping					Total
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable	
Chunya	4,473	0	0	0	101	4,574
Mbeya Rural	2,017	121	113	0	1,335	3,587
Kyela	0	0	0	0	0	0
Rungwe	230	113	0	0	230	573
Ileje	451	323	0	0	125	899
Mbozi'	1,003	638	0	178	13,710	15,528
Mbarali	0	0	0	0	98	98
Mbeya Urban	293	46	0	0	126	465
Total	8,467	1,241	113	178	15,725	25,725

15.17 EXTENSION MESSAGES: Number of Households By Receiving Advice on Fish Farming By Source of Messages By District

District	Fish Farming					Total
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Not applicable	
Chunya	3,884	0	0	0	196	4,080
Mbeya Rural	1,076	121	0	121	1,214	2,533
Kyela	0	0	0	0	0	0
Rungwe	116	113	0	0	230	459
Ileje	641	193	0	0	126	959
Mbozi'	356	642	0	178	14,707	15,883
Mbarali	109	0	0	0	98	207
Mbeya Urban	164	41	21	0	170	396
Total	6,347	1,109	21	300	16,741	24,518

15.18 EXTENSION MESSAGES: Number of Households By Receiving Advice on Other By Source of Messages By District

District	Other						Total
	Government	Development Project	Cooperative	Large Scale Farm	Other	Not applicable	
Chunya	2,148	0	0	0	0	0	2,148
Mbeya Rural	836	0	0	0	0	0	836
Kyela	181	77	0	0	0	0	258
Rungwe	574	113	0	0	0	114	801
Ileje	323	130	65	0	0	0	517
Mbozi'	703	1,054	0	179	538	10,059	12,533
Mbarali	302	0	0	0	0	0	302
Mbeya Urban	94	0	0	0	24	60	177
Total	5,160	1,373	65	179	561	10,233	17,572

15.19 EXTENSION MESSAGES: Number of Households By Receiving Advice on Other By Source of Messages By District

District	Spacing			Use of Agrochemicals			Erosion Control		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Chunya	34,517	33,268	96	17,022	6,092	36	16,881	10,251	61
Mbeya Rural	33,043	32,565	99	24,993	15,790	63	20,234	10,660	53
Kyela	1,043	953	91	1,321	1,022	77	85	85	100
Rungwe	17,190	16,963	99	10,433	6,410	61	13,161	10,413	79
Ileje	6,910	6,521	94	4,679	2,178	47	6,361	4,951	78
Mbozi'	34,248	33,712	98	21,509	15,505	72	15,948	11,884	75
Mbarali	4,389	3,708	84	1,300	653	50	550	221	40
Mbeya Urban	4,161	3,853	93	3,546	2,697	76	2,217	1,317	59
Total	135,502	131,543	97	84,803	50,346	59	75,436	49,781	66

15.20 EXTENSION MESSAGES: Number of Households By Receiving and Adopting Extension Messages By Type of Messages and District for the 2002/03 Agricultural Year _ Mbeya Region

District	Organic Fertilizer Use			Inorganic Fertilizer Use			Use of Improved Seed		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Chunya	19,974	7,939	40	16,122	7,875	49	21,180	5,709	27
Mbeya Rural	25,624	13,680	53	28,096	20,335	72	27,401	10,202	37
Kyela	639	475	74	345	178	52	433	342	79
Rungwe	16,825	15,373	91	13,849	9,994	72	12,204	7,710	63
Ileje	7,320	5,599	76	6,014	2,875	48	5,512	1,406	26
Mbozi'	23,593	15,978	68	30,459	24,697	81	21,182	9,383	44
Mbarali	1,276	648	51	1,517	546	36	2,635	1,566	59
Mbeya Urban	3,720	2,642	71	4,607	3,766	82	3,996	2,725	68
Total	98,970	62,333	63	101,009	70,266	70	94,544	39,042	41

15.21 EXTENSION MESSAGES: Number of Households By Receiving and Adopting Extension Messages By Type of Messages and District for the 2002/03 Agricultural Year _ Mbeya Region

District	Vermin Control			Agro-progressing			Agro-forestry		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Chunya	25,225	22,347	89	27,708	25,213	91	7,749	4,153	54
Mbeya Rural	6,228	7,819	126	21,933	22,173	101	8,764	5,990	68
Kyela	0	0	0	0	0	0	89	0	0
Rungwe	5,642	5,414	96	5,571	5,340	96	8,104	7,189	89
Ileje	1,023	1,347	132	3,902	3,775	97	3,454	2,375	69
Mbozi'	5,641	4,592	81	14,264	13,912	98	7,104	3,394	48
Mbarali	99	208	211	411	519	126	109	109	100
Mbeya Urban	878	973	111	1,788	1,688	94	2,421	1,902	79
Total	44,736	42,700	95	75,577	72,619	96	37,795	25,113	66

15.22 EXTENSION MESSAGES: Number of Households By Receiving and Adopting Extension Messages By Type of Messages and District for the 2002/03 Agricultural Year _ Mbeya Region

District	Beekeeping			Fish Farming			Other		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Chunya	4,378	693	16	3,984	198	5	1,486	1,083	73
Mbeya Rural	1,060	1,792	169	479	1,202	251	1,078	1,317	122
Kyela	0	0	0	0	0	0	77	77	100
Rungwe	115	0	0	116	116	100	227	337	148
Ileje	516	65	13	254	192	76	324	259	80
Mbozi'	1,388	178	13	889	178	20	1,955	1,956	100
Mbarali	0	109	0	0	0	0	105	105	100
Mbeya Urban	160	107	67	176	17	10	37	46	125
Total	7,617	2,944	39	5,899	1,903	32	5,289	5,181	98

**15.23 EXTENSION MESSAGES: Number of Households By Receiving Advice on Other
By Source of Messages By District**

District	Mechanisation / LST			Irrigation Technology			Crop Storage		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Chunya	5,124	939	18	6,580	2,824	43	33,870	32,148	95
Mbeya Rural	4,434	2,650	60	8,508	5,841	69	26,020	25,429	98
Kyela	0	0	0	0	0	0	428	428	100
Rungwe	341	116	34	2,035	1,569	77	11,148	9,887	89
Ileje	304	63	21	1,919	961	50	6,089	5,382	88
Mbozi'	2,734	349	13	6,733	4,831	72	25,084	24,567	98
Mbarali	627	411	66	2,628	2,634	100	1,463	1,129	77
Mbeya Urban	457	458	100	1,376	897	65	2,946	2,736	93
Total	14,021	4,986	36	29,779	19,558	66	107,048	101,706	95

ANIMAL CONTRIBUTION TO CROP PRODUCTION

17.1 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Number of Households Using Draft Animal to Cultivate Land By District

District	Using Draft Animals		Not Using Draft Animals		Total
	Number	%	Number	%	Number
Chunya	10,491	27	27,771	73	38,262
Mbeya Rural	4,761	9	49,104	91	53,865
Kyela	21,531	63	12,661	37	34,192
Rungwe	3,682	5	63,641	95	67,323
Ileje	567	2	25,252	98	25,819
Mbozi'	42,933	41	60,554	59	103,486
Mbarali	18,433	43	24,285	57	42,718
Mbeya Urban	822	11	6,358	89	7,180
Total	103,219	28	269,625	72	372,844

17.2 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Type of Draft By Number Owned, Used and Area Cultivated (Acres) By District During 2002/03 Agriculture Year

District	Type of Craft					
	Oxen			Total		
	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)
Chunya	18,123	39,500	28,326	18,123	39,500	28,326
Mbeya Rural	6,714	11,837	6,018	6,714	11,837	6,018
Kyela	17,496	49,374	19,437	17,496	49,374	19,437
Rungwe	1,608	6,667	1,961	1,608	6,667	1,961
Ileje	120	1,134	409	120	1,134	409
Mbozi'	43,361	95,398	54,699	43,361	95,398	54,699
Mbarali	26,073	58,610	31,650	26,073	58,610	31,650
Mbeya Urban	711	1,862	795	711	1,862	795
Total	114,206	264,382	143,294	114,206	264,382	143,294

17.3 ANIMAL CONTRIBUTION TO CROPS: Number of Crop Growing Households Using Organic Fertilizer By Regio During 2002/03 Agriculture Year

District	Did you apply organic fertilizer during 2002/03?				
	Using Organic Fertilizer		Not Using Organic Fertilizer		Total
	Number	%	Number	%	Number
Chunya	2,822	2	34,818	14	37,640
Mbeya Rural	12,118	10	40,174	16	52,292
Kyela	6,232	5	27,960	11	34,192
Rungwe	38,793	32	28,531	11	67,323
Ileje	15,226	13	10,271	4	25,497
Mbozi'	39,409	32	63,721	26	103,130
Mbarali	4,353	4	38,252	15	42,606
Mbeya Urban	2,473	2	4,577	2	7,050
Total	121,427	100	248,304	100	369,730

17.4 ANIMAL CONTRIBUTION TO CROPS: Area of Farm Yard Manure and Compost Application By District During 2002/03 Agriculture Year

District	Farm Yard Manure Area Applied		Compost Area Applied		Total Area Applied with Organic Fertilizers	
	Area (ha)	%	Area (ha)	%	Area (ha)	%
Chunya	2,518	4	92	0	2,610	3
Mbeya Rural	5,449	8	4,156	18	9,605	10
Kyela	1,377	2	473	2	1,849	2
Rungwe	21,758	31	6,012	26	27,770	30
Ileje	7,572	11	2,771	12	10,343	11
Mbozi'	26,476	37	9,579	41	36,055	38
Mbarali	4,444	6	173	1	4,617	5
Mbeya Urban	1,012	1	113	0	1,125	1
Total	70,606	100	23,368	100	93,975	100

CATTLE PRODUCTION

18.1 Number of Households Rearing Cattle, Head of Cattle and Average Head Per Households by Head Size on 1st. October 2003

Herd Size	Number of Household	%	Number of Cattle	%	Average Number Per Household
1-5	86,185	72	209,187	22	2
6-10	20,964	18	157,846	17	8
11-15	4,478	4	57,046	6	13
16-20	2,286	2	40,365	4	18
21-30	1,889	2	46,454	5	25
31-40	383	0	14,524	2	38
41-50	506	0	23,521	2	47
51-60	111	0	5,659	1	51
61-100	982	1	75,770	8	77
101-150	337	0	40,738	4	121
151+	979	1	269,967	29	276
Total	119,098	100	941,077	100	8

18.2 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and as of 1st October, 2003

District	Improved Beef Cattle						
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	Total
Chunya
Mbeya Rural	.	.	.	121	239	243	603
Kyela
Rungwe	805	116	.	.	116	226	1,263
Ileje
Mbozi'	179	.	179
Mbarali
Mbeya Urban
Total	805	116	.	121	534	469	2,045

18.3 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and as of 1st October, 2003

District	Total Cattle						
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	Total
Chunya	11,108	57,001	16,972	30,247	11,268	12,896	139,491
Mbeya Rural	8,614	23,447	6,243	14,030	7,903	6,969	67,205
Kyela	8,432	16,589	13,312	6,889	6,272	7,601	59,095
Rungwe	9,409	33,440	1,941	20,863	9,919	11,067	86,639
Ileje	3,641	15,139	646	5,948	4,450	5,561	35,384
Mbozi'	26,537	85,560	41,228	39,912	27,474	36,155	256,867
Mbarali	26,077	75,119	39,564	66,627	34,096	45,896	287,381
Mbeya Urban	716	3,076	1,002	2,038	997	1,186	9,016
Total	94,534	309,372	120,909	186,553	102,379	127,330	941,077

GOATS PRODUCTION

19.1 GOAT PRODUCTION: Total Number of Goats by Type and District as of 1st October, 2003

District	Indigenous			Improved for Meat			Improved Dairy			Total Goat	
	Number of Households	Number of Goat	%	Number of Households	Number of Goat	%	Number of Households	Number of Goat	%	Number of Households	Number of Goat
Chunya	5,446	57,023	94.9	291	2,124	3.5	172	956	1.6	5,446	60,104
Mbeya Rural	13,782	65,119	99.5	0	0	0.0	237	357	0.5	13,902	65,476
Kyela	338	1,041	80.2	0	0	0.0	170	258	19.8	420	1,299
Rungwe	4,990	10,575	94.7	116	232	2.1	157	361	3.2	5,147	11,168
Ileje	8,903	31,200	88.0	129	3,541	10.0	194	709	2.0	8,903	35,450
Mbozi'	18,412	91,531	95.1	279	697	0.7	687	3,975	4.1	18,412	96,202
Mbarali	5,948	77,343	97.0	225	1,356	1.7	106	1,062	1.3	5,948	79,762
Mbeya Urban	1,821	8,738	93.7	46	342	3.7	41	247	2.7	1,821	9,327
Total	59,639	342,571	95.5	1,085	8,292	2.3	1,763	7,926	2.2	59,999	358,789

19.2 GOAT PRODUCTION: Number of Total Goat by Category and District as of 1st October, 2003

District	Type					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Chunya	8,532	3,314	31,072	8,336	8,850	60,104
Mbeya Rural	8,227	1,411	41,205	6,892	7,741	65,476
Kyela	88		1,035		176	1,299
Rungwe	1,300		6,417	1,034	2,417	11,168
Ileje	2,960	771	17,383	3,983	10,353	35,450
Mbozi'	16,970	2,480	48,766	13,545	14,442	96,202
Mbarali	16,176	6,441	37,653	9,580	9,912	79,762
Mbeya Urban	923	179	5,697	1,084	1,445	9,327
Total	55,176	14,596	189,228	44,454	55,335	358,789

19.3 GOAT PRODUCTION: Number of Improved Meat Goat by Category and District as of 1st October, 2003

District	Number of Improved for Meat					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Chunya	.	568	1,557	.	.	2,124
Mbeya Rural
Kyela
Rungwe	.	.	232	.	.	232
Ileje	3,541	3,541
Mbozi'	.	.	139	558	.	697
Mbarali	1,133	.	224	.	.	1,356
Mbeya Urban	45	.	156	141	.	342
Total	1,177	568	2,308	699	3,541	8,292

19.4 GOAT PRODUCTION: Number of Improved Dairy Goat by Category and District as of 1st October, 2003

District	Number of Improved Dairy					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Chunya	.	.	.	956	.	956
Mbeya Rural	.	.	237	.	121	357
Kyela	.	.	258	.	.	258
Rungwe	157	.	157	.	47	361
Ileje	.	322	65	.	322	709
Mbozi'	2,594	.	.	810	571	3,975
Mbarali	1,062	1,062
Mbeya Urban	.	114	.	.	134	247
Total	3,813	435	716	1,767	1,194	7,926

19.5 GOAT PRODUCTION: Total Number of Goats by Type and District as of 2st October, 2003

District	Indigenous			Improved for Meat			Improved Dairy			Total Goat	
	Number of Households	Number of Goat	%	Number of Households	Number of Goat	%	Number of Households	Number of Goat	%	Number of Households	Number of Goat
Chunya	5,446	57,023	94.9	291	2,124	3.5	172	956	1.6	5,446	60,104
Mbeya Rural	13,782	65,119	99.5	0	0	0.0	237	357	0.5	13,902	65,476
Kyela	338	1,041	80.2	0	0	0.0	170	258	19.8	420	1,299
Rungwe	4,990	10,575	94.7	116	232	2.1	157	361	3.2	5,147	11,168
Ileje	8,903	31,200	88.0	129	3,541	10.0	194	709	2.0	8,903	35,450
Mbozi'	18,412	91,531	95.1	279	697	0.7	687	3,975	4.1	18,412	96,202
Mbarali	5,948	77,343	97.0	225	1,356	1.7	106	1,062	1.3	5,948	79,762
Mbeya Urban	1,821	8,738	93.7	46	342	3.7	41	247	2.7	1,821	9,327
Total	59,639	342,571	95.5	1,085	8,292	2.3	1,763	7,926	2.2	59,999	358,789

SHEEP PRODUCTION

20.1 SHEEP PRODUCTION: Total Number of Sheep By Breed Type During the 2002/03 Agriculture Year

Breed	Number of Indigenous		Number of Improved for Mutton		Total Sheep	
	Number	%	Number	%	Number	%
Ram	10,219	100	0	0	10,219	15
Castrated Sheep	2,182	60	1,434	40	3,615	5
Sheep	34,469	98	614	2	35,083	53
Male Lamb	7,047	100	0	0	7,047	11
Sheep Lamb	8,251	82	1,815	18	10,066	15
Total	62,168	94	3,863	6	66,031	100

20.2 SHEEP PRODUCTION: Number of Households Rearing Sheep by District as of 1st October, 2002/03 Agriculture Year

District	Raising Sheep		Not Raising Sheep		Total	
	Number	%	Number	%	Number of Agricultural Households	Sheep Keeping Households
Chunya	1,415	4	36,847	96	38,262	1,415
Mbeya Rural	2,037	4	51,827	96	53,865	2,037
Kyela	269	1	33,923	99	34,192	269
Rungwe	692	1	66,631	99	67,323	692
Ileje	2,251	9	23,568	91	25,819	2,251
Mbozi'	2,119	2	101,367	98	103,486	2,119
Mbarali	2,513	6	40,204	94	42,718	2,513
Mbeya Urban	308	4	6,872	96	7,180	308
Total	11,605	3	361,240	97	372,844	11,605

20.3 Number of Sheep by Type of Sheep and District as of 1st October, 2002/03

District	Number of Indigenous		Number of Improved for Mutton		Total Sheep	
	Number	%	Number	%	Number	%
Mbarali	22,260	100	0	0	22,260	34
Mbeya Rural	12,519	100	0	0	12,519	19
Chunya	11,062	96	476	4	11,538	17
Ileje	7,153	80	1,814	20	8,966	14
Mbozi'	6,221	80	1,573	20	7,794	12
Rungwe	1,612	100	0	0	1,612	2
Mbeya Urban	1,072	100	0	0	1,072	2
Kyela	269	100	0	0	269	0
Total	62,168	94	3,863	6	66,031	100

20.5 Number of Households and Heads of Sheep by Herd Size as on 1st October 2003

Herd Size	Number of Household	%	Number of Sheep	%	Average Number Per Household
1-4	6,727	59	15,398	23	2
5-9	2,067	18	11,597	18	6
10-14	2,018	18	22,764	34	11
20-24	65	1	1,362	2	21
30-39	338	3	10,142	15	30
40+	95	1	4,768	7	50
Total	11,310	100	66,031	100	6

20.6 SHEEP PRODUCTION: Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October, 2002/03 Agriculture Year

District	Number of Indigenous					Number of Indigenous
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Chunya	2,276	194	6,387	1,050	1,156	11,062
Mbeya Rural	2,131	480	7,561	946	1,402	12,519
Kyela	93		176	0	0	269
Rungwe	229		1,267	0	116	1,612
Ileje	578	452	3,542	778	1,802	7,153
Mbozi'	494	179	3,608	912	1,028	6,221
Mbarali	4,324	838	11,394	3,119	2,585	22,260
Mbeya Urban	93	39	534	242	163	1,072
Total	10,219	2,182	34,469	7,047	8,251	62,168

20.7 SHEEP PRODUCTION: Total Number of Improved Sheep by Category of Sheep and District as of 1st October, 2002/03 Agriculture Year

District	Number of Improved for Mutton					Number of Improved for Mutton
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Chunya			98		378	476
Mbeya Rural						
Kyela						
Rungwe						
Ileje			516		1,298	1,814
Mbozi'		1,434			139	1,573
Mbarali						
Mbeya Urban						
Total		1,434	614		1,815	3,863

20.8 SHEEP PRODUCTION: Total Number of Sheep by Category of Sheep and District as of 1st October, 2002/03 Agriculture Year

District	Total Sheep					Total Sheep
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Chunya	2,276	194	6,485	1,050	1,534	11,538
Mbeya Rural	2,131	480	7,561	946	1,402	12,519
Kyela	93		176			269
Rungwe	229		1,267		116	1,612
Ileje	578	452	4,059	778	3,100	8,966
Mbozi'	494	1,613	3,608	912	1,167	7,794
Mbarali	4,324	838	11,394	3,119	2,585	22,260
Mbeya Urban	93	39	534	242	163	1,072
Total	10,219	3,615	35,083	7,047	10,066	66,031

PIGS HUSBANDRY

21.9 Number of Households Rearing Pigs, Herd of Pigs and Average Head of per Household by Herd Size as of 1st October, 2003

Herd Size	Number of Household	%	Number of Pig	%	Average Number Per Household
1-4	63,893	81	106,653	47	2
5-9	11,436	15	77,783	34	7
10-14	2,693	3	30,976	14	12
15-19	335	0	5,678	3	17
20-24	350	0	5,467	2	16
25-29	17	0	479	0	28
Total	78,724	100	227,036	100	3

21.10 PIG PRODUCTION: Number of Households Raising Pig by District during 2002/03 Agriculture Year

District	Number of Household	Number of Pig	Average Number Per Household
Chunya	7,144	33,814	5
Mbeya Rural	10,846	33,535	3
Kyela	11,132	32,292	3
Rungwe	24,018	47,019	2
Ileje	4,460	7,516	2
Mbozi'	17,965	57,898	3
Mbarali	2,594	11,798	5
Mbeya Urban	565	3,164	6
Total	78,724	227,036	3

21.11 Total Number of Pigs by Type of Pigs and District as of 1st October, 2003

District	Boar	Castrated Male	Sow / Gilt	Male Piglet	She Piglet	Total
Chunya	4,335	3,088	12,551	6,692	7,147	33,814
Mbeya Rural	3,355	1,758	15,454	6,582	6,386	33,535
Kyela	4,528	2,914	11,601	6,167	7,083	32,292
Rungwe	5,623	4,136	21,875	5,071	10,315	47,019
Ileje	1,089	183	3,700	886	1,658	7,516
Mbozi'	5,480	4,835	19,337	13,689	14,557	57,898
Mbarali	2,079	336	4,366	3,962	1,054	11,798
Mbeya Urban	246	351	735	675	1,156	3,164
Total	26,737	17,601	89,618	43,726	49,355	227,036

LIVESTOCK PESTS & PARASITES CONTROL

22.1 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have dewormed animals during 2002/03 Agriculture Year by

District	Deworming Livestock		NOT Deworming Livestock		Total
	Number	%	Number	%	Number
Chunya	2,958	36	5,307	64	8,265
Mbeya Rur	12,118	64	6,773	36	18,891
Kyela	4,317	31	9,804	69	14,120
Rungwe	21,778	65	11,628	35	33,406
Ileje	5,949	54	4,971	46	10,919
Mbozi	20,138	57	15,397	43	35,535
Mbarali	3,148	30	7,497	70	10,645
Mbeya Urb	2,096	81	499	19	2,594
Total	72,501	54	61,874	46	134,376

22.2 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have dewormed animals during 2002/03 Agriculture Year by District and type of dewormed Livestock

District	Cattles		Goats		Sheep		Pigs	
	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%
Chunya	1,764	3	291	2	266	5	1,289	4
Mbeya Rur	8,294	16	3,369	26	714	14	5,149	17
Kyela	2,726	5	82	1	175	3	2,200	7
Rungwe	15,994	30	804	6	923	18	10,336	35
Ileje	4,218	8	2,685	21	1,917	37	2,688	9
Mbozi	15,439	29	4,141	32	497	10	6,745	23
Mbarali	2,176	4	769	6	439	9	753	3
Mbeya Urb	1,892	4	813	6	203	4	528	2
Total	52,504	100	12,955	100	5,134	100	29,690	100

22.3 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have encountered tsetse flies problems during 2002/03 Agriculture Year by District, 2002/03 Agricultural Year

District	Tsetse Flies Problems		NOT Tsetse Flies Problems		Total
	Number	% age	Number	% age	Number
Chunya	476	6	7,609	94	8,085
Mbeya Rur	1,667	9	16,983	91	18,650
Kyela	2,473	17	11,735	83	14,208
Rungwe	4,840	15	28,227	85	33,067
Ileje	372	3	10,476	97	10,848
Mbozi	1,882	5	34,016	95	35,898
Mbarali	1,412	13	9,451	87	10,862
Mbeya Urb	47	2	2,405	98	2,452
Total	13,168	10	120,902	90	134,070

22.4 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households by Method of Tsetse flies Control during 2002/03 Agriculture Year and District, 2002/03 Agricultural Year

District	Method of Tsetse Flies Control							
	None		Spray		Dipping		Total	
	Number	% age	Number	% age	Number	% age	Number	
Chunya	273	57	203	43	0	0	476	
Mbeya Rur	726	44	942	56	0	0	1,667	
Kyela	1,704	69	769	31	0	0	2,473	
Rungwe	3,802	79	806	17	232	5	4,840	
Ileje	246	66	126	34	0	0	372	
Mbozi	1,766	94	116	6	0	0	1,882	
Mbarali	749	53	551	39	113	8	1,412	
Mbeya Urb	23	49	24	51	0	0	47	
Total	9,289	71	3,535	27	344	3	13,168	

OTHER LIVESTOCK

23b OTHER LIVESTOCK: Number of households with chicken and Category of Chicken by District

District	Number of Chicken			Total Number of Chicken
	Indigenous Chicken	Layer	Broiler	
Chunya	207,975	.	.	207,975
Mbeya Rur	313,544	117	.	313,661
Kyela	206,162	.	.	206,162
Rungwe	349,600	23,171	232	373,004
Ileje	192,135	.	.	192,135
Mbozi	984,356	25,187	171	1,009,714
Mbarali	192,945	8,953	.	201,898
Mbeya Urb	47,079	8,285	.	55,364
Total	2,493,796	65,714	402	2,559,913

23c OTHER LIVESTOCK: Number of Households Rearing and number of Other Livestock by Type and District

District	Ducks		Turkeys		Rabbits		Donkeys		Other	
	Number	Number of Households	Number	Number of Households	Number	Number of Households	Number	Number of Households	Number	Number of Households
Chunya	16,685	2,037	0	0	2,502	373	845	176	7,828	269
Mbeya Rur	3,741	823	2,668	243	15,031	2,028	1,565	846	1,905	474
Kyela	5,419	764	0	0	169	85	7,309	178	0	0
Rungwe	13,553	834	0	0	1,939	800	0	0	0	0
Ileje	4,412	128	3,883	65	8,190	1,395	0	0	623	124
Mbozi	30,585	3,897	892	178	25,747	3,632	1,428	715	3,795	1,048
Mbarali	15,316	2,526	0	0	66,871	210	227	113	0	0
Mbeya Urb	1,881	460	94	37	1,629	223	0	0	227	48
Total	91,591	11,470	7,538	523	122,079	8,744	11,373	2,028	14,378	1,963

23d OTHER LIVESTOCK: Number of households with chicken and Category of Chicken by Flock Size

Flock Size	Number of Households	%	Number of Chicken	%
1 - 4	82,589	32	218,676	9
5 - 9	79,651	31	508,677	20
10 - 19	63,931	25	812,012	32
20 - 29	17,290	7	390,034	15
30 - 39	6,083	2	196,672	8
40 - 49	3,376	1	141,848	6
50 - 99	2,642	1	185,128	7
100+	826	0	106,865	4
Total	256,387	100	2,559,913	100

23e OTHER LIVESTOCK: Number of households with chicken and Category of Chicken by Flock Size

Flock Size	Chicken Rearing Households		Number of Chicken	Average Chicken Per Household
	Number of Households	%		
1 - 4	82,589	32	218,676	3
5 - 9	79,651	31	508,677	6
10 - 19	63,931	25	812,012	13
20 - 29	17,290	7	390,034	23
30 - 39	6,083	2	196,672	32
40 - 49	3,376	1	141,848	42
50 - 99	2,642	1	185,128	70
100+	826	0	106,865	129
Total	256,387	100	2,559,913	10

FISH FARMING

24.1 FISH FARMING: Number of Agricultural Households involved in Fish Farming and District, 2002/03 Agricultural Year

District	Was Fish Farming carried out by this Household DURING 2002/03?				
	YES	%	NO	%	Number
Chunya	84	0	38,178	100	38,262
Mbeya Rur	243	0	53,622	100	53,865
Kyela	0	0	34,192	100	34,192
Rungwe	578	1	66,745	99	67,323
Ileje	256	1	25,562	99	25,819
Mbozi	534	1	102,952	99	103,486
Mbarali	0	0	42,718	100	42,718
Mbeya Urb	17	0	7,163	100	7,180
Total	1,713	0	371,131	100	372,844

24.2a FISH FARMING: Number of Agricultural Households By System of Farming and District, 2002/03 Agricultural Year

District	Systems of Fish Farming				Total
	Natural Pond	Dug out Pond	Natural Lake	Water Rervoir	
Mbeya Rur	0	364			364
Rungwe	0	924			924
Ileje	65	194			259
Mbozi	0	892			892
Mbeya Urb	0	52			52
Total	65	2,427			2,492

24.2b FISH FARMING: Number of Agricultural Households By Source of Fingerings and District, 2002/03 Agricultural Year

District	Source of Fingerling				Total
	Own Pond	hent Institution	NGOs / Project	Neighbour	
Mbeya Rur	0	0	0	364	364
Rungwe	116	345	116	347	924
Ileje	0	0	0	259	259
Mbozi	0	358	0	534	892
Mbeya Urb	0	0	52	0	52
Total	116	704	168	1,504	2,492

24.2c FISH FARMING: Number of Agricultural Households By Location of Selling Fish and District, 2002/03 Agricultural Year

District	Where Sold?					
	Neighbor	Local Market	Large Scale Farms	Trader at Farm	Did not Sell	Other
Mbeya Rur	121	0	0	0	243	0
Rungwe	232	0	0	0	345	347
Ileje	65	0	0	0	194	0
Mbozi	177	0	0	357	358	0
Mbeya Urb	0	0	0	17	35	0
Total	595	0	0	374	1,175	347

24.5 FISH FARMING: Total Number of Fish Harvested by Type and District, 2002/03 Agricultural Year

District	Number of Tilapia	Number of Carp	Number of Others
Chunya	0	0	0
Mbeya Rur	41,050	0	25,504
Rungwe	122,795	0	0
Ileje	61,364	0	0
Mbozi	286,093	0	0
Mbeya Urb	18,355	0	0
Total	529,657	0	25,504

LIVESTOCK EXTENSION

**25.1a LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Advice and District, 2002/03
Agricultural Year**

District	Received Livestock Advice		Did NOT Received Livestock Advice		Total	Total number of Households raising Livestock	
	No. of Households	%	No. of Households	%			
Chunya	9,728	25	28,534	75	38,262	5,240	14
Mbeya Rur	15,773	29	38,092	71	53,865	15,582	29
Kyela	1,726	5	32,466	95	34,192	12,968	38
Rungwe	11,560	17	55,763	83	67,323	32,441	48
Ileje	5,800	22	20,019	78	25,819	9,334	36
Mbozi	13,265	13	90,221	87	103,486	33,025	32
Mbarali	2,007	5	40,710	95	42,718	8,304	19
Mbeya Urb	2,172	30	5,008	70	7,180	2,204	31
Total	62,031	17	310,813	83	372,844	119,098	32

25.1b LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Feeds and Proper Feeding By Source and District, 2002/03 Agricultural Year

District	Source of Advice						Total
	Government	NGO / Development Project	Co-operatives	Large Scale Farmer	Others (Former coding)	Other	
Chunya	6,894	0		0		0	6,894
Mbeya Rur	7,282	239		0		237	7,758
Kyela	312	0		0		0	312
Rungwe	6,854	116		116		0	7,086
Ileje	2,236	65		0		64	2,365
Mbozi	5,995	357		0		0	6,352
Mbarali	533	0		0		0	533
Mbeya Urb	1,121	23		32		9	1,185
Total	31,228	799		148		311	32,485

25.1c LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Proper Milking By Source and District, 2002/03 Agricultural Year

District	Source of Advice Proper Milking						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other	Total		
Chunya	3,158	479	0	0	0	3,637	5,240	69
Mbeya Rur	2,844	239	0	116	0	3,198	15,582	21
Kyela	109	89	0	0	0	197	12,968	2
Rungwe	4,317	116	0	0	0	4,433	32,441	14
Ileje	383	65	0	0	0	448	9,334	5
Mbozi	1,622	350	0	0	178	2,150	33,025	7
Mbarali	332	0	0	0	0	332	8,304	4
Mbeya Urb	702	34	23	23	9	791	2,204	36
Total	13,467	1,371	23	139	188	15,187	119,098	13
%	89	9	0	1	1	100		

25.1d LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Milk Hygiene By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Milk Hygiene						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other	Total		
Chunya	2,751	403	0	0	0	3,154	5,240	60
Mbeya Rur	2,965	121	121	237	0	3,445	15,582	22
Kyela	197	0	0	0	0	197	12,968	2
Rungwe	3,389	0	0	0	0	3,389	32,441	10
Ileje	825	65	0	0	0	890	9,334	10
Mbozi	2,190	171	178	0	0	2,539	33,025	8
Mbarali	439	0	0	0	0	439	8,304	5
Mbeya Urb	739	80	19	23	16	877	2,204	40
Total	13,496	840	319	260	16	14,930	119,098	13
%	90	6	2	2	0	100		

25.1e LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Disease Control By Source and District, 2002/03 Agricultural Year

District	Source of Advice Disease Control (Dipping/spraying)						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operatives	Large Scale Farmer	Other	Total		
Chunya	5,240	0	0	0	0	5,240	5,240	100
Mbeya Rur	11,110	360	0	0	589	12,060	15,582	77
Kyela	1,476	0	0	0	0	1,476	12,968	11
Rungwe	8,263	116	0	0	0	8,379	32,441	26
Ileje	3,014	193	0	59	129	3,396	9,334	36
Mbozi	7,764	358	0	179	0	8,302	33,025	25
Mbarali	1,027	0	0	0	0	1,027	8,304	12
Mbeya Urb	1,464	23	0	47	57	1,591	2,204	72
Total	42,805	1,050	0	286	775	44,916	119,098	38
%	95	2	0	1	2	100		

25.1.f LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Herd /Flock Size and Selection By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Herd/Flock Size & Selection						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other	Total		
Chunya	5,240	0	0	0	0	5,240	5,240	100
Mbeya Rur	2,975	121	0	0	0	3,096	15,582	20
Kyela	158	0	0	0	0	158	12,968	1
Rungwe	1,119	0	0	0	0	1,119	32,441	3
Ileje	319	65	0	0	0	384	9,334	4
Mbozi	1,311	347	0	179	0	1,837	33,025	6
Mbarali	422	0	0	0	111	533	8,304	6
Mbeya Urb	543	90	23	0	0	656	2,204	30
Total	13,039	623	23	179	111	13,976	119,098	12
%	93	4	0	1	1	100		

25.1g LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice Pasture Establishment and Selection By Source and District, 2002/03 Agricultural Year

District	Source of Advice						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other	Total		
Chunya	2,761	0	0		0	2,761	5,240	53
Mbeya Rur	1,769	121	0		0	1,890	15,582	12
Kyela	37	0	0		0	37	12,968	0
Rungwe	1,274	116	0		0	1,390	32,441	4
Ileje	444	65	0		0	508	9,334	5
Mbozi	344	695	178		0	1,217	33,025	4
Mbarali	0	0	0		111	111	8,304	1
Mbeya Urb	308	57	0		0	365	2,204	17
Total	6,937	1,053	178		111	8,280	119,098	7
%	84	13	2	0	1	100		

25.1h LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Group Formation and Strengthening By Source and District, 2002/03 Agricultural Year

District	Source of Advice						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	not applicable	Total		
Chunya	3,883	227	81		0	4,191	5,240	80
Mbeya Rur	3,113	364	116		0	3,593	15,582	23
Kyela	125	169	0		0	295	12,968	2
Rungwe	1,566	116	0		0	1,682	32,441	5
Ileje	835	127	64		65	1,091	9,334	12
Mbozi	2,058	1,046	172		0	3,276	33,025	10
Mbarali	508	0	223		0	730	8,304	9
Mbeya Urb	664	147	0		0	811	2,204	37
Total	12,752	2,195	656		65	15,669	119,098	13
%	81	14	4	0	0	100		

25.1i LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Calf Rearing By Source and District, 2002/03 Agricultural Year

District	Source of Advice						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other	Total		
Chunya	2,940	328	0	0	0	3,268	5,240	62
Mbeya Rur	4,052	360	0	0	0	4,412	15,582	28
Kyela	271	0	0	0	0	271	12,968	2
Rungwe	4,153	0	0	0	0	4,153	32,441	13
Ileje	768	129	0	0	128	1,025	9,334	11
Mbozi	2,657	179	0	172	535	3,543	33,025	11
Mbarali	111	0	0	0	0	111	8,304	1
Mbeya Urb	751	22	23	33	9	838	2,204	38
Total	15,702	1,018	23	205	673	17,620	119,098	15
%	89	6	0	1	4	100		

25.1j LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Use of Improved Bulls By Source and District, 2002/03 Agricultural Year

District	Source of Advice						Total number of Households raising Livestock	% of Receiving advice out of total
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other	Total		
Chunya	3,493	403	0	0	0	3,896	5,240	74
Mbeya Rur	4,645	360	0	121	0	5,126	15,582	33
Kyela	109	0	0	0	0	109	12,968	1
Rungwe	4,334	0	0	0	0	4,334	32,441	13
Ileje	1,418	322	0	65	0	1,806	9,334	19
Mbozi	1,847	178	178	0	178	2,382	33,025	7
Mbarali	0	0	0	0	0	0	8,304	0
Mbeya Urb	727	12	23	41	9	812	2,204	37
Total	16,573	1,276	201	227	188	18,466	119,098	16
%	90	7	1	1	1	100		

29.1k LIVESTOCK EXTENSION: Number of Agricultural Households By Quality of Extension Services and District, 2002/03 Agricultural Year

District	Quality of Service										
	Very Good		Good		Average		Poor		No Good		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Chunya	902	7	6,471	54	3,497	29	913	8	250	2	12,033
Mbeya Rur	1,915	8	13,995	56	1,905	8	5,760	23	1,204	5	24,779
Kyela	89	4	1,236	62	236	12	93	5	355	18	2,008
Rungwe	2,157	18	9,435	80	162	1	0	0	0	0	11,755
Ileje	1,269	20	4,354	70	637	10	0	0	0	0	6,260
Mbozi	5,988	27	14,608	65	1,921	9	0	0	0	0	22,516
Mbarali	220	13	1,298	75	215	12	0	0	0	0	1,732
Mbeya Urb	348	13	1,941	72	370	14	46	2	0	0	2,706
Total	12,888	15	53,338	64	8,942	11	6,812	8	1,808	2	83,789

29.12 Number of Agricultural Households Receiving Advice on other Extension Providers By Source and District, 2002/03 Agricultural Year

District	Extension Provider							Total number of Households raising Livestock	%
	Government	NGO / Development Project	Co-operative	Large Scale Farmer	Other (former coding)	Other	Total		
Chunya	9,728	9,728	9,728	9,728	0	9,728	48,638	5,240	11
Mbeya Rur	15,773	15,773	15,652	15,652	0	15,652	78,500	15,582	20
Kyela	1,726	1,726	1,726	1,726	0	1,726	8,629	12,968	67
Rungwe	11,560	11,560	11,560	11,560	0	11,560	57,801	32,441	56
Ileje	5,800	5,800	5,800	5,800	0	5,800	29,001	9,334	32
Mbozi	13,265	13,086	13,086	13,086	0	13,086	65,610	33,025	50
Mbarali	2,007	1,896	2,007	1,896	0	1,896	9,702	8,304	86
Mbeya Urb	2,172	2,149	2,149	2,149	0	2,149	10,766	2,204	20
Total	62,031	61,717	61,707	61,596	0	61,596	308,647	119,098	39
%	20	20	20	20	0	20	100		

ACCESS TO INFRASTRUCTURE & OTHER SERVICES

26.1 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Secondary School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Secondary School											
	Less than 1	%	1 - 2.9	%	3 - 9.9	%	10 - 19.9	%	Above 20	%	Total	Mean
Chunya	1,353	4	2,961	8	7,035	18	9,970	26	16,942	44	38,262	28
Mbeya Rur	360	1	3,934	7	25,562	47	10,876	20	13,132	24	53,865	15
Kyela	246	1	2,832	8	18,240	53	11,257	33	1,616	5	34,192	9
Rungwe	1,669	2	7,347	11	34,707	52	14,499	22	9,101	14	67,323	10
Ileje	687	3	2,103	8	7,177	28	5,475	21	10,376	40	25,819	16
Mbozi	5,268	5	8,472	8	30,854	30	33,044	32	25,849	25	103,486	15
Mbarali	0	0	3,958	9	22,094	52	8,614	20	8,052	19	42,718	12
Mbeya Urb	666	9	2,568	36	3,820	53	112	2	13	0	7,180	4
Total	10,250	3	34,176	9	149,490	40	93,847	25	85,082	23	372,844	14

26.2. ACCESS TO SERVICES: Number of Agricultural Households by Distance to All Weather Road and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to ALL Weather Road											
	Less than 1		1 - 2.9		3 - 9.9		10 - 19.9		Above 20		Total	
Chunya	15,887		5,128		8,025		8,652		569		38,262	5
Mbeya Rur	33,193		7,404		10,112		2,913		242		53,865	2
Kyela	22,424		6,375		5,051		88		254		34,192	3
Rungwe	30,763		23,184		12,222		927		227		67,323	2
Ileje	11,521		7,014		5,243		1,851		190		25,819	3
Mbozi	57,582		16,630		18,297		8,329		2,648		103,486	4
Mbarali	24,069		6,610		9,151		880		2,008		42,718	4
Mbeya Urb	6,020		1,082		78		0		0		7,180	0
Total	201,459		73,428		68,178		23,640		6,139		372,844	3

Table 26.3 : Mean distances from holders dwellings to infrastructures and services by districts

District	Mean Distance to										
	Secondary Schools	Primary Schools	All weather roads	Feeder roads	Hospitals	Health Clinics	Regional Capital	Primary Markets	Secondary Market	Tertiary Market	Tarmac roads
Chunya	28	2	5	1	54	6	114	17	26	34	106
Mbeya Rural	15	10	2	0	38	5	40	7	23	26	24
Kyela	9	2	3	1	16	4	124	5	12	14	11
Rungwe	10	2	2	1	18	4	83	7	18	22	21
Ileje	16	2	3	3	43	5	144	8	22	41	65
Mbozi	15	2	4	1	42	7	112	11	19	31	37
Mbarali	12	2	4	2	48	6	110	5	11	24	26
Mbeya Urban	4	1	0	0	10	3	11	4	11	8	4
Total	14	3	3	1	36	6	98	9	19	27	37

26.4 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Hospital School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Hospital										Total	Mean
	Less than 1	%	1 - 2.9	%	3 - 9.9	%	10 - 19.9	%	Above 20	%		
Chunya	525	1	894	2	1,578	4	1,775	5	33,490	88	38,262	54
Mbeya Rur	121	0	0	0	3,142	6	7,664	14	42,938	80	53,865	38
Kyela	0	0	937	3	6,770	20	15,229	45	11,256	33	34,192	16
Rungwe	230	0	2,421	4	21,023	31	18,783	28	24,866	37	67,323	18
Ileje	376	1	551	2	2,477	10	2,757	11	19,657	76	25,819	43
Mbozi	866	1	4,497	4	7,454	7	21,684	21	68,986	67	103,486	42
Mbarali	406	1	2,865	7	4,423	10	5,498	13	29,526	69	42,718	48
Mbeya Urb	0	0	122	2	2,631	37	4,404	61	23	0	7,180	10
Total	2,524	1	12,287	3	49,498	13	77,793	21	230,742	62	372,844	36

26.5 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Health Clinic School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Health Clinic										Total	Mean
	Less than 1	%	1 - 2.9	%	3 - 9.9	%	10 - 19.9	%	Above 20	%		
Chunya	8,977	23	6,231	16	12,595	33	9,794	26	665	2	38,262	6
Mbeya Rur	3,933	7	10,883	20	30,680	57	7,156	13	1,213	2	53,865	5
Kyela	5,212	15	11,275	33	16,149	47	1,289	4	267	1	34,192	4
Rungwe	3,814	6	20,092	30	38,572	57	4,382	7	463	1	67,323	4
Ileje	3,214	12	6,799	26	14,001	54	1,419	5	386	1	25,819	5
Mbozi	9,187	9	15,679	15	57,552	56	13,194	13	7,875	8	103,486	7
Mbarali	6,328	15	12,203	29	18,497	43	1,970	5	3,720	9	42,718	6
Mbeya Urb	960	13	2,436	34	3,748	52	23	0	13	0	7,180	3
Total	41,626	11	85,598	23	191,793	51	39,226	11	14,602	4	372,844	6

26.6 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Primary School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Primary School						Total	Mean
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20			
Chunya	14,290	15,005	8,873	0	94	38,262	2	
Mbeya Rur	16,721	24,825	10,871	840	607	53,865	10	
Kyela	10,397	18,601	5,103	0	90	34,192	2	
Rungwe	14,324	40,927	11,493	232	348	67,323	2	
Ileje	4,509	12,644	8,605	0	61	25,819	2	
Mbozi	30,792	53,616	16,947	1,775	356	103,486	2	
Mbarali	14,138	16,791	10,706	754	329	42,718	2	
Mbeya Urb	2,790	3,480	910	0	0	7,180	1	
Total	107,961	185,888	73,509	3,602	1,885	372,844	3	

26.7 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Feeder Road and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Feeder Road										Total	Mean
	Less than 1	%	1 - 2.9	%	3 - 9.9	%	10 - 19.9	%	Above 20			
Chunya	25,014	65.4	8,618	22.5	4,058	10.6	101	0.3	471	38,262	1.5	
Mbeya Rur	47,784	88.7	3,854	7.2	2,227	4.1	0	0.0	0	53,865	0.4	
Kyela	28,616	83.7	4,272	12.5	1,122	3.3	0	0.0	182	34,192	0.9	
Rungwe	41,601	61.8	20,431	30.3	5,059	7.5	0	0.0	232	67,323	1.1	
Ileje	15,048	58.3	7,536	29.2	3,107	12.0	0	0.0	127	25,819	2.6	
Mbozi	77,856	75.2	18,520	17.9	5,334	5.2	1,597	1.5	179	103,486	0.8	
Mbarali	34,594	81.0	5,831	13.7	1,652	3.9	222	0.5	418	42,718	2.0	
Mbeya Urb	6,628	92.3	530	7.4	23	0.3	0	0.0	0	7,180	0.2	
Total	277,141	74.3	69,593	18.7	22,581	6.1	1,920	0.5	1,610	372,844	1.1	

26.8 Number of Households to Feeder Roads and District 2002/03 agricultural Year

District	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	Total	Mean Distances
	No. of Households	No. of Households	No. of Households	No. of Households	No. of Households		
Chunya	25,014	8,618	4,058	101	471	38,262	1.5
Mbeya Rur	47,784	3,854	2,227	0	0	53,865	0.4
Kyela	28,616	4,272	1,122	0	182	34,192	0.9
Rungwe	41,601	20,431	5,059	0	232	67,323	1.1
Ileje	15,048	7,536	3,107	0	127	25,819	2.6
Mbozi	77,856	18,520	5,334	1,597	179	103,486	0.8
Mbarali	34,594	5,831	1,652	222	418	42,718	2.0
Mbeya Urb	6,628	530	23	0	0	7,180	0.2
Total	277,141	69,593	22,581	1,920	1,610	372,844	1.1

26.9 Number of Households to Regional Capital and District 2002/03 agricultural Year

District	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	Total	Mean Distances
	No. of Households	No. of Households	No. of Households	No. of Households	No. of Households		
Chunya	100	0	99	487	37,576	38,262	114
Mbeya Rur	0	0	1,447	8,149	44,269	53,865	40
Kyela	87	0	93	627	33,384	34,192	124
Rungwe	575	0	529	346	65,873	67,323	83
Ileje	0	0	64	64	25,690	25,819	144
Mbozi	178	0	0	0	103,308	103,486	112
Mbarali	281	198	106	0	42,132	42,718	110
Mbeya Urb	24	0	2,560	4,550	46	7,180	11
Total	1,246	198	4,899	14,223	352,279	372,844	98

26.10 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Tarmac Road and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Tarmac Road					Total	Mean Distances
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20		
Chunya	197	0	289	98	37,679	38,262	106
Mbeya Rur	4,010	3,204	11,706	12,109	22,835	53,865	24
Kyela	4,135	1,685	13,927	10,663	3,783	34,192	11
Rungwe	4,928	5,927	13,813	9,662	32,992	67,323	21
Ileje	443	377	374	0	24,624	25,819	65
Mbozi	4,675	5,752	15,701	15,638	61,721	103,486	37
Mbarali	7,304	1,870	9,708	7,021	16,815	42,718	26
Mbeya Urb	915	2,524	3,568	158	16	7,180	4
Total	26,607	21,339	69,086	55,348	200,464	372,844	37

26.11 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Primary Market and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Primary Market					Total	Mean Distances
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20		
Chunya	6,993	6,131	11,564	7,925	5,649	38,262	17
Mbeya Rur	4,191	8,867	25,422	13,572	1,813	53,865	7
Kyela	3,235	7,687	17,973	5,209	88	34,192	5
Rungwe	6,358	11,633	34,505	12,187	2,640	67,323	7
Ileje	3,108	4,954	9,991	5,584	2,182	25,819	8
Mbozi	15,952	15,628	42,237	16,000	13,669	103,486	11
Mbarali	10,102	8,868	17,070	4,339	2,338	42,718	5
Mbeya Urb	2,187	864	4,107	22	0	7,180	4
Total	52,126	64,632	162,870	64,838	28,378	372,844	9

26.12 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Tertiary Market and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Tertiary Market					Total	Mean Distances
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20		
Chunya	5,098	3,484	4,793	5,156	19,731	38,262	34
Mbeya Rur	361	1,057	9,619	14,616	28,212	53,865	26
Kyela	407	1,513	12,454	12,888	6,930	34,192	14
Rungwe	5,651	6,139	11,726	11,312	32,495	67,323	22
Ileje	611	1,049	4,783	2,688	16,687	25,819	41
Mbozi	3,694	6,415	11,346	21,828	60,202	103,486	31
Mbarali	3,858	5,891	11,685	6,754	14,529	42,718	24
Mbeya Urb	110	913	4,256	1,875	27	7,180	8
Total	19,790	26,461	70,664	77,116	178,814	372,844	27

26.13 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Secondary Market and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Secondary Market					Total	Mean Distances
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20		
Chunya	725	2,541	12,459	10,173	12,364	38,262	26
Mbeya Rur	351	591	8,319	29,935	14,670	53,865	23
Kyela	9,351	5,075	7,988	7,630	4,148	34,192	12
Rungwe	9,027	5,831	8,781	39,301	4,383	67,323	18
Ileje	872	1,447	6,495	8,258	8,747	25,819	22
Mbozi	10,053	13,935	26,008	21,265	32,226	103,486	19
Mbarali	2,645	5,067	18,918	8,457	7,629	42,718	11
Mbeya Urb	2,209	0	664	4,307	0	7,180	11
Total	35,234	34,487	89,632	129,324	84,167	372,844	19

26.14 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Veterinary Clinic and District, 2002/03 Agricultural Year

District	Satisfaction of Using Veterinary Clinic										Total Number of Households
	Very Good	%	Good	%	Average	%	Poor	%	No good	%	
	No. of Households		No. of Households		No. of Households		No. of Households		No. of Households		
Chunya	3,291	8.6	10,092	26.4	5,334	13.9	19,395	50.7	1,718	4.5	38,262
Mbeya Rur	472	0.9	9,566	17.8	4,557	8.5	54,743	98.4	1,778	3.3	53,865
Kyela	598	1.7	1,233	3.6	1,291	3.8	6,075	17.8	3,517	10.3	34,192
Rungwe	1,836	2.7	13,481	20.0	14,090	20.9	5,445	8.1	811	1.2	67,323
Ileje	1,328	5.1	4,923	19.1	5,583	21.6	8,484	32.9	1,231	4.8	25,819
Mbozi	6,964	6.7	15,001	14.5	10,237	9.9	19,129	18.5	11,398	11.0	103,486
Mbarali	547	1.3	3,064	7.2	1,394	3.3	104	0.2	222	0.5	42,718
Mbeya Urb	951	13.2	5,015	69.8	1,713	23.9	1,308	18.2	127	1.8	7,180
Total	15,987	4.3	62,374	16.7	44,200	11.9	114,683	30.8	20,802	5.6	372,844

26.15 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Extension Center and District, 2002/03 Agricultural Year

District	Satisfaction of Using Extension Center										Total Number of Households
	Very Good	%	Good	%	Average	%	Poor	%	No good	%	
	No. of Households		No. of Households		No. of Households		No. of Households		No. of Households		
Chunya	1,539	4.0	4,624	12.1	947	2.5	3,067	8.0	95	0.2	38,262
Mbeya Rur	116	0.2	7,278	13.5	2,277	4.2	7,433	13.8	121	0.2	53,865
Kyela	82	0.2	521	1.5	344	1.0	879	2.6	773	2.3	34,192
Rungwe	572	0.8	7,741	11.5	3,123	4.6	1,041	1.5	116	0.2	67,323
Ileje	1,071	4.1	3,149	12.2	1,222	4.7	1,329	5.1	258	1.0	25,819
Mbozi	2,052	2.0	8,891	8.6	4,452	4.3	1,941	1.9	176	0.2	103,486
Mbarali	110	0.3	1,752	4.1	628	1.5	0	0.0	0	0.0	42,718
Mbeya Urb	235	3.3	2,866	39.9	506	7.0	157	2.2	34	0.5	7,180
Total	5,777	1.5	36,822	9.9	13,499	3.6	15,847	4.3	1,574	0.4	372,844

26.16 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Research Station and District, 2002/03 Agricultural Year

District	Satisfaction of Using Research Station										Total Number of Households
	Very Good	%	Good	%	Average	%	Poor	%	No good	%	
	No. of Households		No. of Households		No. of Households		No. of Households		No. of Households		
Chunya	151	0.4	966	2.5	1,216	3.2	3,726	9.7	380	1.0	38,262
Mbeya Rur	118	0.2	1,327	2.5	482	0.9	10,915	20.3	474	0.9	53,865
Kyela	264	0.8	269	0.8	0	0.0	1,145	3.3	773	2.3	34,192
Rungwe	230	0.3	1,275	1.9	2,086	3.1	463	0.7	116	0.2	67,323
Ileje	0	0.0	702	2.7	551	2.1	1,456	5.6	195	0.8	25,819
Mbozi	1,061	1.0	1,032	1.0	896	0.9	3,886	3.8	2,137	2.1	103,486
Mbarali	223	0.5	113	0.3	0	0.0	0	0.0	111	0.3	42,718
Mbeya Urb	348	4.9	493	6.9	462	6.4	259	3.6	0	0.0	7,180
Total	2,395	0.6	6,179	1.7	5,693	1.5	21,851	5.9	4,186	1.1	372,844

26.17 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Plant Protection Lab and District, 2002/03 Agricultural Year

District	Satisfaction of Using Plant Protection Lab										Total Number of Households
	Very Good	%	Good	%	Average	%	Poor	%	No good	%	
	No. of Households		No. of Households		No. of Households		No. of Households		No. of Households		
Chunya	174	0.5	1,067	2.8	1,097	2.9	3,633	9.5	380	1.0	38,262
Mbeya Rur	0	0.0	364	0.7	481	0.9	11,149	20.7	354	0.7	53,865
Kyela	0	0.0	0	0.0	0	0.0	1,320	3.9	598	1.8	34,192
Rungwe	114	0.2	927	1.4	2,318	3.4	695	1.0	116	0.2	67,323
Ileje	0	0.0	512	2.0	551	2.1	1,388	5.4	195	0.8	25,819
Mbozi	523	0.5	531	0.5	0	0.0	3,036	2.9	3,207	3.1	103,486
Mbarali	0	0.0	0	0.0	113	0.3	0	0.0	111	0.3	42,718
Mbeya Urb	99	1.4	225	3.1	235	3.3	322	4.5	24	0.3	7,180
Total	911	0.2	3,625	1.0	4,794	1.3	21,543	5.8	4,985	1.3	372,844

26.18 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Land Registration Office and District, 2002/03 Agricultural Year

District	Satisfaction of Using Land Registration Office										Total Number of Households
	Very Good	%	Good	%	Average	%	Poor	%	No good	%	
	No. of Households		No. of Households		No. of Households		No. of Households		No. of Households		
Chunya	174	0.5	1,255	3.3	1,097	2.9	3,642	9.5	196	0.5	38,262
Mbeya Rur	119	0.2	121	0.2	481	0.9	9,468	17.6	475	0.9	53,865
Kyela	82	0.2	0	0.0	321	0.9	967	2.8	701	2.1	34,192
Rungwe	460	0.7	694	1.0	1,970	2.9	1,391	2.1	116	0.2	67,323
Ileje	0	0.0	183	0.7	1,426	5.5	1,467	5.7	195	0.8	25,819
Mbozi	523	0.5	1,011	1.0	1,356	1.3	3,745	3.6	2,317	2.2	103,486
Mbarali	213	0.5	0	0.0	218	0.5	0	0.0	0	0.0	42,718
Mbeya Urb	45	0.6	159	2.2	371	5.2	392	5.5	69	1.0	7,180
Total	1,616	0.4	3,423	0.9	7,241	1.9	21,072	5.7	4,069	1.1	372,844

26.19 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Livestock Development Center

District	Satisfaction of Using Livestock Development Center										Total Number of Households
	Very Good		Good		Average		Poor		No good		
	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	
Chunya	286	0.7	907	2.4	177	0.5	1,661	4.3	380	1.0	38,262
Mbeya Rur	119	0.2	121	0.2	361	0.7	7,522	14.0	234	0.4	53,865
Kyela	86	0.3	0	0.0	93	0.3	447	1.3	159	0.5	34,192
Rungwe	230	0.3	348	0.5	1,970	2.9	1,043	1.5	232	0.3	67,323
Ileje	195	0.8	255	1.0	808	3.1	1,449	5.6	195	0.8	25,819
Mbozi	703	0.7	1,164	1.1	896	0.9	3,527	3.4	2,136	2.1	103,486
Mbarali	0	0.0	0	0.0	113	0.3	0	0.0	0	0.0	42,718
Mbeya Urb	101	1.4	512	7.1	0	0.0	46	0.6	0	0.0	7,180
Total	1,718	0.5	3,307	0.9	4,420	1.2	15,695	4.2	3,336	0.9	372,844

26.20 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of the service and district for 2002/03 agricultural Year

TYPE OF SERVICE	LEVEL OF SATISFACTION OF THE SERVICE									
	Very Good		Good		Average		Poor		No good	
	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%
Using Veterinary Clinic	15,986.5	4.3	62,373.8	16.7	44,200.1	11.9	114,682.5	30.8	20,801.8	5.6
Extension Center	5,776.9	1.5	36,821.9	9.9	13,499.3	3.6	15,846.5	4.3	1,573.7	0.4
Research Station	2,395.3	0.6	6,178.6	1.7	5,692.6	1.5	21,850.6	5.9	4,185.7	1.1
Plant Protection Lab	910.8	0.2	3,625.4	1.0	4,794.5	1.3	21,543.1	5.8	4,984.9	1.3
Land Registration Office	1,616.3	0.4	3,423.5	0.9	7,240.9	1.9	21,072.4	5.7	4,069.2	1.1
Livestock Development Center	1,718.0	0.5	3,306.9	0.9	4,420.1	1.2	15,694.8	4.2	3,335.6	0.9

HOUSEHOLD FACILITIES

27.1: Number of Agricultural Households by Type of TOILET and District, 2002/03 Agricultural Year

District	No Toilet or Bush	Flush Toilet	Traditional Pit Latrine	Improved Pit Latrine	Other Type	Total
Chunya	296	1,219	36,321	330	96	38,262
Mbeya Rur	1,065	6,783	45,658	358	0	53,865
Kyela	414	0	33,352	425	0	34,192
Rungwe	347	835	64,974	1,167	0	67,323
Ileje	63	647	24,155	953	0	25,819
Mbozi	2,479	3,300	96,021	1,687	0	103,486
Mbarali	1,521	940	39,392	864	0	42,718
Mbeya Urb	172	173	6,577	259	0	7,180
Total	6,357	13,898	346,449	6,044	96	372,844

27.2 : HOUSEHOLD FACILITIES: Number of households reporting average number of rooms and type of Roofing Materials by District, 2002/03 Agricultural Year

District	Number of rooms	Iron Sheets	Tiles	Concrete	Asbestos	Grass/Leaves	Grass or Mud	Other	Total Households
Chunya	3	11,756	280	0	0	19,736	6,490	0	38,262
Mbeya Rur	2	31,003	242	0	232	18,464	2,594	1,330	53,865
Kyela	2	10,021	86	0	0	22,888	1,197	0	34,192
Rungwe	2	28,714	225	231	0	35,373	2,317	463	67,323
Ileje	2	9,313	519	0	383	15,410	194	0	25,819
Mbozi	2	49,148	1,241	0	0	52,741	357	0	103,486
Mbarali	2	10,932	204	0	1,117	24,678	5,786	0	42,718
Mbeya Urb	3	6,405	0	0	0	568	185	23	7,180
Total	2	157,291	2,797	231	1,733	189,858	19,119	1,816	372,844

27.3 Number of Agricultural Households by Type of Owned Asset and District for 2002/03 agricultural Year

Type of Owned Asset	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Radio	21,212	10.7	26,989	13.6	14,627	7.3	30,463	15.3	14,881	7.5	59,623	29.9	26,539	13.3	4,800	2.4	199,134	53.4
Landline phone	429	28.0	121	7.9	82	5.3	220	14.3	0	0.0	356	23.2	207	13.5	118	7.7	1,533	0.4
Mobile phone	999	14.7	1,813	26.6	742	10.9	1,214	17.8	194	2.9	924	13.6	429	6.3	487	7.2	6,803	1.8
Iron	8,158	9.2	13,015	14.7	7,620	8.6	15,422	17.4	5,276	6.0	25,765	29.1	10,643	12.0	2,757	3.1	88,656	23.8
Wheelbarrow	2,800	13.6	5,865	28.5	1,568	7.6	2,658	12.9	709	3.4	4,565	22.2	1,601	7.8	829	4.0	20,595	5.5
Bicycle	13,746	10.5	13,525	10.3	16,671	12.7	14,792	11.3	4,214	3.2	43,703	33.4	21,546	16.5	2,605	2.0	130,803	35.1
Vehicle	557	10.5	1,196	22.5	334	6.3	566	10.6	64	1.2	1,705	32.1	770	14.5	126	2.4	5,318	1.4
Television / Video	632	13.4	1,558	32.9	88	1.9	709	15.0	125	2.6	605	12.8	760	16.1	254	5.4	4,730	1.3
Total Number of Households	38,262	10.3	53,865	14.4	34,192	9.2	67,323	18.1	25,819	6.9	103,486	27.8	42,718	11.5	7,180	1.9	372,844	100.0

27.4: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2002/03 Agricultural Year

Type of Owned Asset	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Electricity	1,376.5	22.5	473.0	7.7	145.5	2.4	1,301.9	21.3	238.6	3.9	1,561.1	25.5	697.9	11.4	331.6	5.4	6,126.1	1.6
Solar	0.0	0.0	119.5	52.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	106.2	47.1	0.0	0.0	225.7	0.1
Gas (Biogas)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6	100.0	23.6	0.0
Hurricane Lamp	13,593.8	13.9	14,469.2	14.8	8,421.6	8.6	12,320.3	12.6	5,413.1	5.5	24,159.4	24.7	16,427.8	16.8	2,839.7	2.9	97,644.8	26.2
Pressure Lamp	637.3	5.2	3,129.9	25.7	770.7	6.3	2,294.3	18.8	703.5	5.8	3,684.5	30.3	848.8	7.0	104.9	0.9	12,173.8	3.3
Wick Lamp	22,056.6	8.8	34,372.3	13.7	24,137.5	9.6	50,947.9	20.3	19,019.6	7.6	72,761.5	29.0	24,012.4	9.6	3,833.8	1.5	251,141.6	67.4
Candles	95.4	12.6	0.0	0.0	257.8	34.0	114.6	15.1	0.0	0.0	179.2	23.6	111.0	14.6	0.0	0.0	757.9	0.2
Firewood	404.5	8.9	1,301.1	28.6	458.6	10.1	344.1	7.6	444.1	9.7	1,140.8	25.0	414.8	9.1	46.4	1.0	4,554.5	1.2
Other	97.7	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.6	50.2	0.0	0.0	196.3	0.1
Total	38,261.7	10.3	53,864.8	14.4	34,191.8	9.2	67,323.2	18.1	25,818.8	6.9	103,486.5	27.8	42,717.6	11.5	7,180.0	1.9	372,844.3	100.0

27.6: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2002/03 Agricultural Year

Type of Owned Asset	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Mains Electricity	296.9	44.9	0.0	0.0	72.0	10.9	115.9	17.5	60.9	9.2	0.0	0.0	105.9	16.0	9.4	1.4	660.9	0.2
Solar	196.6	32.3	121.4	20.0	0.0	0.0	115.9	19.1	0.0	0.0	174.0	28.6	0.0	0.0	0.0	0.0	608.0	0.2
Bottled Gas	180.8	38.7	0.0	0.0	0.0	0.0	0.0	0.0	63.9	13.7	0.0	0.0	222.8	47.7	0.0	0.0	467.5	0.1
Parraffin / Kerocine	0.0	0.0	0.0	0.0	82.0	16.4	0.0	0.0	0.0	0.0	178.1	35.6	219.7	44.0	19.8	4.0	499.6	0.1
Charcoal	1,439.7	15.2	237.6	2.5	1,806.1	19.0	999.3	10.5	625.0	6.6	2,508.8	26.4	1,482.8	15.6	403.7	4.2	9,503.1	2.5
Firewood	36,072.1	10.1	53,263.7	14.9	30,202.4	8.5	65,634.6	18.4	25,004.1	7.0	100,446.7	28.1	40,037.0	11.2	6,729.7	1.9	357,390.3	95.9
Crop Residues	0.0	0.0	120.9	3.8	2,029.1	64.1	341.5	10.8	64.9	2.0	178.9	5.6	432.0	13.6	0.0	0.0	3,167.4	0.8
Livestock Dung	0.0	0.0	121.2	26.7	0.0	0.0	115.9	25.5	0.0	0.0	0.0	0.0	217.4	47.8	0.0	0.0	454.4	0.1
Other	75.6	81.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5	18.8	93.1	0.0
Total	38,261.7	10.3	53,864.8	14.4	34,191.8	9.2	67,323.2	18.1	25,818.8	6.9	103,486.5	27.8	42,717.6	11.5	7,180.0	1.9	372,844.3	100.0

27.8: Number of Agricultural Households by Main Source of Drinking Water during (Wet & Dry) Seasons by District, 2002/03 Agricultural Year

	Season	Chunya	Mbeya Rural	Kyela	Rungwe	Ileje	Mbozi	Mbarali	Mbeya Urban
Piped Water	Wet	8,449	8,895	22,697	11,383	4,536	5,414	20,905	4,965
	Dry	8,449	8,895	22,697	11,383	4,536	5,414	20,905	4,965
Protected Well	Wet	1,316	2,417	2,107	1,558	1,009	15,331	6,342	181
	Dry	1,316	2,417	2,107	1,558	1,009	15,331	6,342	181
Protected / Covered Spring	Wet	295	1,572	360	1,725	875	13,705	0	42
	Dry	295	1,572	360	1,725	875	13,705	0	42
Uprotected Well	Wet	18,093	5,093	5,920	12,573	1,462	27,286	7,819	126
	Dry	18,093	5,093	5,920	12,573	1,462	27,286	7,819	126
Unprotected Spring	Wet	2,179	16,375	1,063	28,600	13,082	26,004	729	1,374
	Dry	2,179	16,375	1,063	28,600	13,082	26,004	729	1,374
Surface Water (Lake / Dam / River / Stream)	Wet	6,377	17,992	1,809	11,322	4,790	15,631	6,727	492
	Dry	6,377	17,992	1,809	11,322	4,790	15,631	6,727	492
Covered Rainwater Catchment	Wet	370	121	158	0	0	0	97	0
	Dry	370	121	158	0	0	0	97	0
Uncovered Rainwater Catchment	Wet	95	1,174	77	163	0	116	0	0
	Dry	95	1,174	77	163	0	116	0	0
Water Vendor	Wet	0	227	0	0	0	0	0	0
	Dry	0	227	0	0	0	0	0	0
Tanker Truck	Wet	1,088	0	0	0	65	0	97	0
	Dry	1,088	0	0	0	65	0	97	0
Total Agricultural Households Per District		38,262	53,865	34,192	67,323	25,819	103,486	42,718	7,180

27.9: Number of Agricultural Households by Main Source of Drinking Water during (Wet & Dry) Seasons by District, 2002/03 Agricultural Year

Source	Season	District							
		Chunya	Mbeya Rural	Kyela	Rungwe	Ileje	Mbozi	Mbarali	Mbeya Urban
Piped Water	Wet	22.1	16.5	66.4	16.9	17.6	5.2	48.9	69.2
	Dry	22.1	16.5	66.4	16.9	17.6	5.2	48.9	69.2
Protected Well	Wet	3.4	4.5	6.2	2.3	3.9	14.8	14.8	2.5
	Dry	3.4	4.5	6.2	2.3	3.9	14.8	14.8	2.5
Protected / Covered Spring	Wet	0.8	2.9	1.1	2.6	3.4	13.2	0.0	0.6
	Dry	0.8	2.9	1.1	2.6	3.4	13.2	0.0	0.6
Unprotected Well	Wet	47.3	9.5	17.3	18.7	5.7	26.4	18.3	1.7
	Dry	47.3	9.5	17.3	18.7	5.7	26.4	18.3	1.7
Unprotected Spring	Wet	5.7	30.4	3.1	42.5	50.7	25.1	1.7	19.1
	Dry	5.7	30.4	3.1	42.5	50.7	25.1	1.7	19.1
Surface Water (Lake / Dam / River / Stream)	Wet	16.7	33.4	5.3	16.8	18.6	15.1	15.7	6.8
	Dry	16.7	33.4	5.3	16.8	18.6	15.1	15.7	6.8
Covered Rainwater Catchment	Wet	1.0	0.2	0.5	0.0	0.0	0.0	0.2	0.0
	Dry	1.0	0.2	0.5	0.0	0.0	0.0	0.2	0.0
Uncovered Rainwater Catchment	Wet	0.2	2.2	0.2	0.2	0.0	0.1	0.0	0.0
	Dry	0.2	2.2	0.2	0.2	0.0	0.1	0.0	0.0
Water Vendor	Wet	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
	Dry	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Tanker Truck	Wet	2.8	0.0	0.0	0.0	0.3	0.0	0.2	0.0
	Dry	2.8	0.0	0.0	0.0	0.3	0.0	0.2	0.0
Total Agricultural Households Per District (% age)		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

27.10: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water by Season (Wet & Dry) and District, 2002/03 Agricultural Year

Distance to Main Source of Drinking Water	Season	District							
		Chunya	Mbeya Rur	Kyela	Rungwe	Ileje	Mbozi	Mbarali	Mbeya Urb
Less than 100m	Wet	11,115.7	11,779.9	10,516.2	6,347.6	2,317.6	16,492.1	9,032.5	2,252.0
	Dry	9,678.5	8,450.7	10,161.6	6,319.3	2,322.8	10,562.1	7,865.6	2,102.5
100 - 299 m	Wet	2,620.1	9,972.1	4,205.9	14,913.8	7,408.4	18,248.8	13,126.9	2,268.9
	Dry	2,202.9	9,860.0	4,201.8	14,598.6	6,900.7	16,478.5	11,367.3	2,058.5
300 - 499 m	Wet	1,592.2	3,259.4	3,914.8	4,147.5	4,485.3	7,901.2	2,239.1	671.0
	Dry	1,613.4	3,254.5	3,478.5	4,151.0	4,036.3	7,216.5	2,442.8	659.5
500 - 999 m	Wet	5,954.5	6,848.0	9,797.4	18,503.9	6,846.2	22,994.2	8,869.8	1,145.0
	Dry	5,376.2	5,907.2	9,454.6	18,385.1	6,780.6	24,645.7	8,747.6	1,459.8
1 - 1.99 Km	Wet	10,201.9	14,711.4	4,274.5	18,357.9	4,069.9	23,662.9	6,354.7	519.1
	Dry	10,462.3	14,886.7	5,068.6	18,469.1	4,010.7	25,649.9	5,784.8	538.9
2 - 2.99 Km	Wet	3,725.9	4,909.4	936.3	4,477.6	564.3	8,246.5	1,802.0	285.1
	Dry	3,995.4	7,266.4	842.1	4,366.2	1,455.9	10,153.2	2,766.4	285.1
3 - 4.99 Km	Wet	2,747.3	2,038.1	178.2	347.7	127.0	2,771.4	1,080.0	19.3
	Dry	3,773.6	3,193.4	616.2	575.0	187.0	4,196.8	2,306.0	58.6
5 - 9.99 Km	Wet	202.6	119.6	368.4	227.1	0.0	3,169.4	212.6	19.6
	Dry	1,059.3	1,046.0	368.4	458.9	124.9	4,229.9	1,437.2	17.1
10Km and above	Wet	101.4	227.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dry	100.1	0.0	0.0	0.0	0.0	353.9	0.0	0.0

27.11: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water by Season (Wet & Dry) and District, 2002/03 Agricultural Year

Distance to Main Source of Drinking Water	Season	District							
		Chunya	Mbeya Rur	Kyela	Rungwe	Ileje	Mbozi	Mbarali	Mbeya Urb
Less than 100m	Wet	29.1	21.9	30.8	9.4	9.0	15.9	21.1	31.4
	Dry	25.3	15.7	29.7	9.4	9.0	10.2	18.4	29.3
100 - 299 m	Wet	6.8	18.5	12.3	22.2	28.7	17.6	30.7	31.6
	Dry	5.8	18.3	12.3	21.7	26.7	15.9	26.6	28.7
300 - 499 m	Wet	4.2	6.1	11.4	6.2	17.4	7.6	5.2	9.3
	Dry	4.2	6.0	10.2	6.2	15.6	7.0	5.7	9.2
500 - 999 m	Wet	15.6	12.7	28.7	27.5	26.5	22.2	20.8	15.9
	Dry	14.1	11.0	27.7	27.3	26.3	23.8	20.5	20.3
1 - 1.99 Km	Wet	26.7	27.3	12.5	27.3	15.8	22.9	14.9	7.2
	Dry	27.3	27.6	14.8	27.4	15.5	24.8	13.5	7.5
2 - 2.99 Km	Wet	9.7	9.1	2.7	6.7	2.2	8.0	4.2	4.0
	Dry	10.4	13.5	2.5	6.5	5.6	9.8	6.5	4.0
3 - 4.99 Km	Wet	7.2	3.8	0.5	0.5	0.5	2.7	2.5	0.3
	Dry	9.9	5.9	1.8	0.9	0.7	4.1	5.4	0.8
5 - 9.99 Km	Wet	0.5	0.2	1.1	0.3	0.0	3.1	0.5	0.3
	Dry	2.8	1.9	1.1	0.7	0.5	4.1	3.4	0.2
10Km and above	Wet	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0
	Dry	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0

27.12 Number of Agricultural Households by Number of Meals Normally take Took Per Day by District During 2002/03 Agricultural Year

Number of Meals Per Day	District																	
	Chunya		Mbeya Rural		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urban			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
One	1,414	11	4,225	34	518	4	347	3	779	6	4,228	34	639	5	265	2	12,414	3.3
Two	24,859	10	40,360	16	21,411	8	35,831	14	17,201	7	87,224	34	24,664	10	4,376	2	255,926	68.6
Three	11,589	11	8,925	9	12,264	12	31,145	30	7,839	8	11,864	12	16,894	16	2,403	2	102,924	27.6
Four	399	25	355	22	0	0	0	0	0	0	171	11	520	33	135	9	1,580	0.4
Total	38,262	10	53,865	14	34,192	9	67,323	18	25,819	7	103,486	28	42,718	11	7,180	2	372,844	100.0

34-13: Number of Agricultural Households by Number of days the household Consumed Meat during the Preceeding Week by District, 2002/03 Agricultural Year

Number of Meals Per Day	District																	
	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Not Eaten	11,885.8	12.7	14,349.2	15.4	6,922.9	7.4	14,314.2	15.4	6,091.6	6.5	27,186.5	29.2	10,885.8	11.7	1,608.1	1.7	93,244.2	25.0
One	10,982.3	8.1	17,737.3	13.1	13,637.4	10.1	28,033.9	20.7	8,706.6	6.4	39,501.5	29.2	14,368.1	10.6	2,541.8	1.9	135,508.9	36.3
Two	9,494.8	9.9	14,476.9	15.0	8,136.1	8.5	17,565.8	18.3	8,012.6	8.3	25,053.4	26.0	11,394.7	11.8	2,097.5	2.2	96,231.6	25.8
Three	3,570.8	10.5	5,147.1	15.2	3,323.1	9.8	5,667.0	16.7	2,368.8	7.0	8,635.7	25.5	4,614.4	13.6	535.7	1.6	33,862.7	9.1
Four	1,680.0	19.3	958.9	11.0	1,792.7	20.6	1,466.2	16.9	323.7	3.7	1,411.6	16.2	867.9	10.0	187.1	2.2	8,688.2	2.3
Five	648.0	16.2	958.7	23.9	214.9	5.4	229.3	5.7	251.4	6.3	1,234.6	30.8	305.0	7.6	166.2	4.1	4,008.1	1.1
Six	0.0	0.0	118.9	27.6	128.0	29.7	0.0	0.0	0.0	0.0	0.0	0.0	184.1	42.7	0.0	0.0	431.0	0.1
Seven	0.0	0.0	117.7	13.5	36.7	4.2	46.7	5.4	64.0	7.4	463.2	53.3	97.5	11.2	43.7	5.0	869.6	0.2
Total	38,261.7	10.3	53,864.8	14.4	34,191.8	9.2	67,323.2	18.1	25,818.8	6.9	103,486.5	27.8	42,717.6	11.5	7,180.0	1.9	372,844.3	100.0

34-14: Number of Agricultural Households by Number of days the household Consumed Fish during the Preceeding Week by District, 2002/03 Agricultural Year

Number of Meals Per Day	District																	
	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Not Eaten	7972	7	23488	22	1299	1	12090	12	13478	12	35793	33	11134	10	2635	2.4	107890	29
One	7979	7	16297	15	3739	3	24098	7	7561	7	33509	30	14222	13	2540	2.3	109943	29
Two	9865	12	9538	12	9079	11	17188	5	3950	5	20232	25	9807	12	1580	1.9	81240	22
Three	4880	13	2507	7	8415	22	9369	1	509	1	7599	20	4652	12	237	0.6	38168	10
Four	2285	13	1316	8	6124	36	2693	1	191	1	2126	12	2264	13	117	0.7	17116	5
Five	1680	18	719	8	2305	25	1770	1	65	1	1937	21	637	7	70	0.8	9184	2
Six	956	31	0	0	1219	40	115	2	65	2	704	23	0	0	0	0	3059	1
Seven	2645	42	0	0	2012	32	0	0	0	0	1586	25	0	0	0	0	6242	2
Total	38,261.7	10	53,864.8	14	34,191.8	9	67,323.2	7	25,818.8	7	103,486.5	28	42,717.6	11	7,180.0	1.9	372,844.3	100

27-15: Number of Agricultural Households Reporting the status of food of the households during the Preceding Year by District, 2002/03 Agricultural Year

Status of Food Availability	District																	
	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Never	21,657	10.1	27,274	12.7	18,348	8.5	49,338	22.94	15,752	7.3	55,238	25.7	23,403	10.9	4,038	1.9	215,048	57.7
Seldom	11,201	10.8	18,354	17.7	10,209	9.8	13,893	13.39	8,015	7.7	29,689	28.6	10,661	10.3	1,734	1.7	103,757	27.8
Sometimes	2,010	10.4	2,512	13.0	2,342	12.1	2,034	10.50	834	4.3	7,290	37.6	1,910	9.9	447	2.3	19,378	5.2
Often	1,646	7.1	3,577	15.5	2,079	9.0	1,260	5.45	963	4.2	8,822	38.1	4,212	18.2	589	2.5	23,149	6.2
Always	1,747	15.2	2,147	18.7	1,214	10.5	797	6.92	255	2.2	2,447	21.3	2,532	22.0	372	3.2	11,512	3.1
Total	38,262	10.3	53,865	14.4	34,192	9.2	67,323	18.06	25,819	6.9	103,486	27.8	42,718	11.5	7,180	1.9	372,844	100.0

27.16 Number of Households by Type of Roofing Materials by District, 2002/03 Agricultural Year

Sources of Income	District																	
	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Sales of Food Crops	10,843	6	26,182	14	22,392	12	39,065	21	15,094	8	42,189	23	25,783	14	3,207	2	184,754	50
Sale of Livestock	2,213	27	1,898	23	260	3	798	10	824	10	534	6	1,541	18	269	3	8,337	2
Sale of Livestock Products	367	10	121	3	300	8	858	24	194	5	1,128	31	322	9	329	9	3,619	1
Sales of Cash Crops	5,014	8	6,441	10	5,774	9	17,516	27	4,684	7	25,475	39	221	0	99	0	65,222	17
Sale of Forest Products	1,656	21	2,225	29	37	0	1,195	15	580	7	1,599	21	315	4	146	2	7,753	2
Business Income	6,669	16	7,422	18	1,858	4	2,349	6	1,711	4	16,810	41	3,767	9	890	2	41,478	11
Wages & Salaries in Cash	943	10	1,420	15	1,046	11	1,067	11	757	8	3,040	31	310	3	1,078	11	9,661	3
Other Casual Cash Earnings	4,939	15	6,372	19	755	2	1,419	4	1,084	3	8,678	26	9,072	27	774	2	33,093	9
Cash Remittance	101	1	1,662	21	867	11	1,708	21	194	2	2,134	27	955	12	360	5	7,981	2
Fishing	1,044	34	0	0	506	16	0	0	322	10	1,230	40	0	0	0	0	3,103	1
Other	4,474	67	121	2	85	1	884	13	373	6	670	10	0	0	28	0	6,635	2
not applicable	0	0	0	0	312	26	463	38	0	0	0	0	432	36	0	0	1,207	0
Total	38,262	10	53,865	14	34,192	9	67,323	18	25,819	7	103,486	28	42,718	11	7,180		372,844	100

27.17: HOUSEHOLD FACILITIES: Number of households type of Roofing Materials by District, 2002/03 Agricultural Year

Roofing Materials	District																	
	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Iron Sheets	11,756	7	31,003	20	10,021	6	28,714	18	9,313	6	49,148	31	10,932	7	6,405	4	157,291	42.2
Tiles	280	10	242	9	86	3	225	8	519	19	1,241	44	204	7	0	0	2,797	0.8
Concrete	0	0	0	0	0	0	231	100	0	0	0	0	0	0	0	0	231	0.1
Asbestos	0	0	232	13	0	0	0	0	383	22	0	0	1,117	64	0	0	1,733	0.5
Grass/Leaves	19,736	10	18,464	10	22,888	12	35,373	19	15,410	8	52,741	28	24,678	13	568	0	189,858	50.9
Grass & Mud	6,490	34	2,594	14	1,197	6	2,317	12	194	1	357	2	5,786	30	185	1	19,119	5.1
Other	0	0	1,330	73	0	0	463	25	0	0	0	0	0	0	23	1	1,816	0.5
Total	38,262	10	53,865	14	34,192	9	67,323	18	25,819	7	103,486	28	42,718	11	7,180	2	372,844	100.0

27.18: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2002/03 Agricultural Year

Sources of Energy for cooking	District																	
	Chunya		Mbeya Rur		Kyela		Rungwe		Ileje		Mbozi		Mbarali		Mbeya Urb		Total	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Mains Electricity	297	44.9	0	0.0	72	10.9	116	17.5	61	9.2	0	0.0	106	16.0	9	1.4	661	0
Solar	197	32.3	121	20.0	0	0.0	116	19.1	0	0.0	174	28.6	0	0.0	0	0.0	608	0
Bottled Gas	181	38.7	0	0.0	0	0.0	0	0.0	64	13.7	0	0.0	223	47.7	0	0.0	467	0
Paraffin / Kerocine	0	0.0	0	0.0	82	16.4	0	0.0	0	0.0	178	35.6	220	44.0	20	4.0	500	0
Charcoal	1,440	15.2	238	2.5	1,806	19.0	999	10.5	625	6.6	2,509	26.4	1,483	15.6	404	4.2	9,503	3
Firewood	36,072	10.1	53,264	14.9	30,202	8.5	65,635	18.4	25,004	7.0	100,447	28.1	40,037	11.2	6,730	1.9	357,390	96
Crop Residues	0	0.0	121	3.8	2,029	64.1	342	10.8	65	2.0	179	5.6	432	13.6	0	0.0	3,167	1
Livestock Dung	0	0.0	121	26.7	0	0.0	116	25.5	0	0.0	0	0.0	217	47.8	0	0.0	454	0
Other	76	81.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17	18.8	93	0
Number of Households	38,262	10.3	53,865	14.4	34,192	9.2	67,323	18.1	25,819	6.9	103,486	27.8	42,718	11.5	7,180	1.9	372,844	100

APPENDIX III QUESTIONNAIRES

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Page Number

Agriculture Sample Census 2002/03



ACLF 1: Sub-village leader listing form

Region _____ Code <input style="width:30px; height:20px;" type="text"/>	Ward _____ Code <input style="width:30px; height:20px;" type="text"/>
District _____ Code <input style="width:30px; height:20px;" type="text"/>	Village _____ Code <input style="width:30px; height:20px;" type="text"/>

Name of Village Chairman:.....

Sub-village leader number	Name of sub-village leader	Number of households		Comments
		From office register	After enumeration	
(1)	(2)	(3)	(4)	(5)
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
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<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
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<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
<input style="width:30px; height:20px;" type="text"/>		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	
Total		<input style="width:30px; height:20px;" type="text"/>	<input style="width:30px; height:20px;" type="text"/>	

Name of enumerator..... Signature Date.....

Name of supervisor..... Signature Date.....

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Interval Starting point

2x2 grid

Page Number.....

Agriculture Sample Census 2002/03

ACL: 2 Household listing form - form for listing household heads and their agriculture activities

Region, District, Ward, Village, Code, Name of Sub-village Leaaader, Subvillage leader code, Name of Sub-village



Table with columns: Household Number, Household head name, Fields +, Cattle (Total Number, Adult male, Adult female, Calves), Goats, Sheep, Pigs, poultry/ducks, Rabbit, ✓ if the respondent qualifies to be a farmer, Farmer Serial Numbers.

* NOTE: (Column 13) Place a "✓" if the household has at least 1 field over 25m² and/or keeps at least 1 Cow, 5 Goats/Sheep/Pigs or 50 Chicken/poultry or ducks

+(Column 3) A field must be at least 25 m²

Name of enumerator..... Signature Date.....

Name of supervisor..... Signature Date.....

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National Agriculture Sample Census 2002/03

ACLF: 3 Household listing of 15 selected farmers

Region _____
 District _____
 Ward _____
 Village _____

Code
 Code
 Code
 Code






S/N	Sub village leader number			Name of sub-village leader	Agriculture hh serial number	Name of selected head of household	Number of							
	(1)	(2)	(3)				(4)	(5)	(6)	(7)	(8)	(9)	(10)	(12)
01					<input type="text"/> <input type="text"/> <input type="text"/>									
02					<input type="text"/> <input type="text"/> <input type="text"/>									
03					<input type="text"/> <input type="text"/> <input type="text"/>									
04					<input type="text"/> <input type="text"/> <input type="text"/>									
05					<input type="text"/> <input type="text"/> <input type="text"/>									
06					<input type="text"/> <input type="text"/> <input type="text"/>									
07					<input type="text"/> <input type="text"/> <input type="text"/>									
08					<input type="text"/> <input type="text"/> <input type="text"/>									
09					<input type="text"/> <input type="text"/> <input type="text"/>									
10					<input type="text"/> <input type="text"/> <input type="text"/>									
11					<input type="text"/> <input type="text"/> <input type="text"/>									
12					<input type="text"/> <input type="text"/> <input type="text"/>									
13					<input type="text"/> <input type="text"/> <input type="text"/>									
14					<input type="text"/> <input type="text"/> <input type="text"/>									
15					<input type="text"/> <input type="text"/> <input type="text"/>									

Name of Enumerator: _____ Signature _____ Date _____

Name of Supervisor _____ Signature _____ Date _____

Ministry of Agriculture and Food Security, Ministry of Water and Livestock Development, Ministry of
 Cooperatives and Marketing and the National Bureau of Statistics

United Republic of Tanzania		
ACQ 1		CONFIDENTIAL
Small holder/Small Scale Farmer Questionnaire		
Agriculture Sample Census		
2002/2003		
		

Enumerator	Name	Signature													
	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> d d / m m / y y		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">Hour</td> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">Minutes</td> </tr> <tr> <td style="text-align: center;">Start time</td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td style="text-align: center;">End time</td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> </tr> </table>		Hour		Minutes	Start time	<input type="text"/>	<input type="text"/>	<input type="text"/>	End time	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Hour		Minutes												
Start time	<input type="text"/>	<input type="text"/>	<input type="text"/>												
End time	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Field level checking by:			<i>To be completed by the supervisor ONLY after field/farm level checking of the enumeration process. This should be countersigned by the enumerator.</i>												
District Supervisor:	Name	signature		Date .. / .. / ..											
Regional Supervisor:	Name	signature		Date .. / .. / ..											
National Supervisor:	Name	signature		Date .. / .. / ..											
District checking in Office:			<i>All questionnaires must be checked at the district office.</i>												
District Supervisor	Name	signature		Date .. / .. / ..											
For Use at National Level only:			<i>See back page for details of query</i>												
Data Entered by	Name	signature		Date .. / .. / ..											
Queried	Name	signature		Date .. / .. / ..											

Executed by the Ministry of Agriculture and Food Security, Ministry of Water and Livestock Development,
Ministry of Cooperatives and Marketing
and
National Bureau of Statistics

1.0 IDENTIFICATION DETAILS			
1.1 Location			
S/N	Location Name	Codes	
1.1.1	Region	<input type="text"/> <input type="text"/>	
1.1.2	District	<input type="text"/>	
1.1.3	Ward	<input type="text"/> <input type="text"/> <input type="text"/>	
1.1.4	Village	<input type="text"/> <input type="text"/>	
1.2 Details of the respondent and household head			
S/N		Codes	
1.2.1	Name & number of local leader	<input type="text"/> <input type="text"/> <input type="text"/>	
1.2.2	Name & number of household head	<input type="text"/> <input type="text"/>	
1.2.3	Sex of household head (Male = 1, Female = 2)	<input type="text"/> <input type="text"/>	
1.2.4	Name of respondent	<input type="text"/> <input type="text"/>	
1.2.5	Relationship of Respondent to Household Head		
<p>Relationship to household head codes (Q 1.2.5) Head of Household.....1 Son/Daughter3 Grandson/Granddaughter5 Other (friend, employee, etc)...8 Spouse2 Father/Mother4 Other relative.....6</p>			
2.0 ACTIVITIES OF THE HOUSEHOLD			
2.1	Type of Agriculture Household	<input type="text"/>	
<p>Agriculture household codes(Q2.1) Crops only.....1 Livestock only2 Pastoralist.....3 Crops and Livestock4</p>			
2.2	Rank the following livelihood activities/source of income of the household in order of importance		
S/N	Livelihood/source of income activity.	Rank in order of importance 1=most 7=least	How important are each of these activities expressed in percentage.
	(1)	(2)	(3)
2.2.1	Annual Crop farming	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.2	Permanent crop farming	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.3	Livestock keeping/herding	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.4	Off Farm Income	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.5	Remittances	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.6	Fishing/hunting and gathering	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.7	Tree/forest resources (eg honey, firewood, timber,etc)	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
			<input type="text"/> <input type="text"/> <input type="text"/> %

Definition and working page for page 1**General Definitions****Small holder hh/small scale farm:**

Should have between 25sq metres and 20 Hectares under production, and/or between 1 and 50 head of Cattle, and/or between 5 and 100 head of Sheep/Goats/Pigs, and/or between 50 and 1000 chickens/turkeys/ducks/rabbits.

Household: A group of people who occupy the whole or part of one or more housing units and makes joint provisions for food and/or other essentials for living.

Household Head: A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for making decisions.

Agricultural Holding: This is an economic unit of agricultural production under single management. It consists of all livestock kept and all land used for agricultural production without regard to title. For the purpose of this survey, the agricultural holdings are restricted to those which meet one of the following conditions:

- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/pigs or fifty chicken/ducks/turkeys during the agricultural year 2002/03 (October 2002 to September 2003) .

Question Specific Definitions:**Type of Agriculture Holdings Codes (Q2.1):**

- **Crops only:** A holding is referred to be a crops only holding if it has cultivated a piece of land equal or exceeding 25 sq Meter. This also applies to all households owning or have kept livestock whose number does not qualify such household to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/ducks/rabbits)

- **Livestock only:** A holding is referred to be a Livestock only holding if it has exercised Livestock husbandry only during the agricultural year. The livestock can be herded in search for areas of pasture, but the core household unit always remains in the same place and the herder is rarely away from this place for long periods at a time.

- **Livestock pastoralism:** This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

For both livestock only and pastoralism , the number of livestock has to be at least 1 head of cattle, 5 goats/sheep/pigs or 50 chickens/turkeys/ ducks/rabbits. This also applies to all households owning or have cultivated a piece of land less than 25 sq meter, which does not qualify such household be an agricultural holding.

- **Both crops and livestock:** A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households is owning or have kept livestock whose number qualify such household be an agricultural holding.

Important livelihood activities/source of income (Q 2.2):

- **Crop farming:** This refers to a household where crop production is its major means of subsistence and income generation.

- **Livestock farming/herding/pastoralism:** This refers to a household where livestock farming/herding is its major means of subsistence & income generation.

- **Off Farm Income** This refers to cash generated from activities other than from the households holding. This can be from permanent employment (eg government/other), temporary employment/labouring and includes cash generated from working on other farmers farms.

-**Remittances:** Assistance from family members who are not currently part of the household, or from a relative or family friend. This assistance is usually in the form of cash but it can also be in-kind (eg food, clothes, building material, farm tools, etc). The money is a gift and is not paid back.

-**Fishing/hunting and gathering** The use of non farmed resources for food eg fishing, hunting wildlife and gathering mushrooms, berries, wild honey roots from uncultivated land.

Procedures for Questions:**Q 2.1 Type of agriculture household/holding**

1. Using the options under the question classify the type of agriculture hh/holding

Note: If the hh had 1 acre of crops and raised 40 chickens during 2002/03 it is classified as '**Crops only**' as the number of chickens do not qualify the hh as keeping livestock.

Q 2.2 Important hh livelihood activities /source of income

1. Read the list in column 1 to the respondent and ask him to rank them in order of importance during the reference year.

2. In column 2 Indicate the importance of each activity by placing '1' against the most important, '2' against the second most important, etc until you reach '7' the least important activity/source of income.

Note: You must attempt to fill in all boxes. Most households will carry out these activities to a greater or lesser degree. You will normally have to probe to get remittances.

If the hh did not undertake an activity during the 2002/2003 agriculture year then mark the appropriate box in column 2 with an 'X'.

3. For each activity/source of income assign a percentage. The enumerator should assist the respondent in assigning the percentage based on the information provided by the farmer.

4. After completing column 3 make sure the percentages add up to 100.

Note: It is not essential to be 100% accurate. This question is just to give the relative importance of the different items in general terms

3.0 HOUSEHOLD INFORMATION

3.1 Give details of personal **particulars** of all household members beginning with the head of the household

S/N	Names of household members	Relation-ship to head	Sex M=1 F=2	Age (if age is above 99 years then write 99)	Survival of Parents		Read & Write	Edu- ca- tion Status	Education Level reached	Invol- vement in farming	Main activity (for aged 5 & above)	Off-farm Income Yes=1 No=2
					Mo- ther	Fa- ther						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
3.1.1	1	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
3.1.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

Relation to head (Col 2)
 Head of household1
 Spouse2
 Son/daughter3
 Father/Mother4
 Grandson/granddaughter .5
 Other Relative6
 Others8

Education Status (Col 8)
 Attending School1
 Completed2
 Never attended School3

Involvement in farming activities (Col 10)
 Works full time on farm ...1
 Works part-time on farm 2
 Rarely works on farm3
 Never works on farm.....4

Main activity (Col 11)
 Crop Farming01
 Livestock Keeping/Herding..02
 Livestock Pastoralism.....03
 Fishing04
 Paid employment:
 - Government/parastatal05
 - Private- NGO/mission/etc .06
 Self employed (non farming)
 - with employees07
 - without employees08
 Unpaid family helper (non
 agriculture)09
 Not working & available.....10
 Not working & unavailable...11
 Housemaker/housewife12
 Student13
 Unable to work /too old/
 Retired/sick/disabled).....14
 Other98

Survival of Parents (Col 5 & 6)
 Yes1
 No2
 Don't know3

Education Level Reached (Col 9)

Primary Education	Secondary Education
Not of school ageNA	Form one11
Under Standard One00	Form two12
Standard One01	Form three13
Standard Two02	Form four14
Standard Three03	Form five15
Standard Four04	Form six16
Standard Five05	Training after Secondary
Standard Six06	Education17
Standard Seven07	University & other tertiary
Standard Eight08	Education18
Training after Primary	Adult Education19
Education09	Not applicable99
Pre Form One10	

Read & Write (Col 7)
 Swahili1
 English2
 Swahili & English3
 Any other language4
 Don't Read/ Write5

Definition and working page for page 2**Question Specific Definitions:****Relation to head (Col 2):**

- **Household Head:** A person who is acknowledged by all other members of the household either by virtue of their age or standing as the household head.

Read and Write (Col 7):

- **Any other language:** Must be a written language.

For someone who can read and write in Swahili and any other language apart from English, the correct code is 1. For one who can read and write in English and any other language apart from Swahili the correct code is 2. Code 4 should only be used for another language but not English or Swahili

Education Level Reached (Col 9):

Indicate the highest level only. For those still attending school fill in the last year reached before the survey period. For example if a hh member is currently in standard 7 this year his highest grade reached is standard 6

Main Activity (Col 11):

- **Crop farming:** The persons main activity is crop production. This can be annual crops, vegetables, permanent crops or tree farming.

- **Livestock farming/herding:** The persons main activity is livestock farming/herding. The livestock can be herded in search for areas of pasture, but the core household unit always remains in the same place and the herder is rarely away from this place for long periods at a time. This category also includes fish farming but not fishing.

- **Livestock pastoralism:** The persons main activity is in moving livestock from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they may have no permanent place of residence.

- **Paid employment** - In full time employment earning a cash income

- Government/Parastatal - In full time employment for a government Ministry, Department or Board that is controlled by the Government
- Private/NGO/Mission/etc - employed by Non public/government organisation

- **Self employee** - works for own business for cash income

- With employees - Works for own business for cash and employs other workers

- Without employees - Works for own business for cash but does not employ other workers

- **Not working but available to work** - No productive activity but would like to have one.

- **Not working & nor available for work** - No productive activity and does not want to have one.

- **Unable to work** too old, too young, retired, disabled, etc

Off-farm Income (Col 12) - Income made from activities NOT on the HH's farming activities. This can be any off farm income generation activity and includes working for cash on other peoples farms.

Indicate whether each member was involved in an off farm income generating activity during 2002/03

Overview to section 3.0**Section 3.0 - Preliminary note**

1. Make sure that you define the hh properly to ensure that all the members of the hh are included. Make sure you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.

2. If you notice that his house is large or you see many people around his house and he has only given you small number of hh members enquire further until you are sure that you have captured all the hh members.

Procedures for questions**Section 3.0 - Household Information**

1. For each household member complete columns 1, 2 & 3.

2. After completing columns 1, 2 & 3 for each household member go back to the first household member and complete the remaining columns for that member.

3. Repeat step 2 for the rest of the household members

IMPORTANT NOTE:

Cross check responses in columns 11 and 12 with section 2 especially in relation to:

off-farm income - if a hh member was involved in off farm income then there should be a response in question 2.2.4 and vice versa.

4.0 LAND ACCESS/OWNERSHIP/TENURE			
4.1 Details of area "owned" by the household in the 2002/03 agricultural year. Give area reported by the respondent in "acres".		Area in Acres	
4.1.1	Area Leased/Certificate of ownership	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.2 Was all land available to the hh used during 2002/03 (Yes=1, No=2) <input type="checkbox"/>
4.1.2	Area owned under Customary Law	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.3	Area Bought from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.3 Do you consider that you have sufficient land for the hh (Yes=1, No=2) <input type="checkbox"/>
4.1.4	Area Rented from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.5	Area Borrowed from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.4 Do any female members of the hh own or have customary right to land (Yes=1, No=2) <input type="checkbox"/>
4.1.6	Area Share -cropped from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.7	Area under Other forms of tenure	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	

5.0 LAND USE			
5.1 Area operated by household under different forms of land use during 2002/03 agriculture year. Give area reported by the respondent in "acres".		Area in Acres	
			Calculation area
5.1.1	Area under Temporary Mono-crops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.2	Area under Temporary Mixed crops (eg Maize & beans)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.3	Area under Permanent Mono-crops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.4	Area under Permanent Mixed crops (eg bananas, coffee & trees)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.5	Area under Permanent/temporary mix (eg bananas & maize)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.6	Area under Pasture	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.7	Area under Fallow	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.8	Area under Natural Bush	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.9	Area under Planted Trees	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.10	Area Rented to others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.11	Area Unusable	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.12	Area of Uncultivated Usable land (excluding fallow)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	

6.0 ACCESS AND USE OF RESOURCES

6.1 In the following table indicate the distance to the different fields used by the household

S/N	Field Number	Distance (in kilometres) from field to:			Distance codes less than 100m1 between 2 and 3km6 between 100 and 300m ..2 between 3 and 5km7 between 300 and 500m ..3 between 5 and 10 km ..8 between 500 and 1km....4 Over 10 km9 between 1 and 2km5
		Homestead	Nearest road	Nearest Market	
6.1.1	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	
6.1.2	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	
6.1.3	3	<input type="text"/>	<input type="text"/>	<input type="text"/>	

6.2 In the following table indicate the distance and use of the following communal resources

S/N	Communal Resource	Distance to resource (km)		Main hh use	Instructions for distance to resource (Col 2 and 3): If under 1km, write 0 If above 1km round to whole numbers eg 1.5km= 2km, 1.25km= 1km Main hh use (Col 4) Home or farm Consumption/utilisation.....1 Sold to Neighbours.....2 Sold to trader on the farm.....3 Sold to village market4 Sold to local wholesale market.....5 Sold to major wholesale market6 Not used by household.....7 Not available8
		dry season <i>(1)</i>	wet season <i>(2)</i>		
6.2.1	Water for humans	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.2	Water for livestock	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.3	Communal Grazing	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.4	Communal Firewood	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.5	Wood for Charcoal	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.6	Building poles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.7	Forest for bees (honey)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.8	Hunting (animal products)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.9	Fishing (Fish)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	

Definition and working page for page 3

Question Specific Definitions

Section 4.1 - Land Access/Ownership

Lease/Certificate of Ownership Area under lease/certificate of ownership refers to the area for which the household possesses a government issued leasehold title or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

Customary Law: This refers to the land which the hh does not have an official government title to but its right of use is granted by the traditional leaders. This user-right agreement does not have to be granted directly by the village leaders as right of access may be passed on through heredity.

Bought: This refers to the area of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.

Rented from others: Land rented from others for Cash or for a fixed amount in crop produce (eg fixed number of bags at harvest).

Borrowed: Use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.

Share Cropping: where the hh is permitted to use land which is then paid for from a percentage of the harvested crop.

Section 5.0 Land Use

- **Temporary crops:** are sown and harvested during the same agricultural year

- **Permanent crops:** are sown or planted once and then , they occupy the land for some years and need not to be replanted after each annual harvest. Permanent crops are mainly trees (e.g., apples) but also bushes and shrubs (e.g., berries), palms (e.g., dates), vines (e.g., grapes), herbaceous stems (e.g., bananas) and stemless plants (e.g., pineapples).

- **Mixed Crops:** This is a mixture of two or more crops planted together and mixed in the same plot/field. The two crops can either be randomly planted together or they can be planted in a particular pattern eg intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed. This is further subdivided into:

Permanent Mixed -two or more permanent crops grown together,
Permanent/Temporary Mix - permanent crop and annual crop together,
Temporary Mixed - two or more temporary, annual crops grown together.

- **Pasture Land:** This is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or applied other production increasing technologies to improve the grazing. Or it can be rough pasture.

- **Fallow:** This is the area of land that is normally used for crop production, but is not used for crop production during a year or a number of years. This is normally to allow for self generation of fertility/soil structure and is often an integral part of the crop rotation system.

- **Natural Bush:** Land which is considered productive but is not under cultivation or used extensively for livestock production and has naturally growing shrubs and trees.

- **Planted trees:** Land which is used for planting trees for poles or timber

- **Unusable:** Land that is known to be non-productive for agriculture purposes

Uncultivated Usable: This is land that was not used for reasons other than fallow. The reasons could be lack of inputs/money/rainfall/etc

Distance to fields (Q6.1):

-**fields** A field is a contiguous piece of land holding which the farmer considers as a single entity. The field may be divided into plots for growing different crops. A holding may consist of one or more fields in different localities.

Use of Communal Resources (Q6.2):

-**Communal resources** - refers to the place on which all individual households can have access to. It is not individually owned or controlled by one hh.

NOTE: The listed resources refers to communal resources and not those individually owned or part shared. The resource has to be freely accessible to the whole village

Overview to section 4

Section 4.0 - Preliminary note Land Access/ Ownership

Access/Ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between households. It does include official communal land that the hh has sole access to eg a plot for crop farming in the communal area.

Procedures for Questions

Section 4.0 - Land Ownership

1. Ask the respondent if he knows the total area of land the household has sole access to. If he knows make a note in the calculation space
2. Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1.1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information).
4. If the total area is different find out which one is correct and make amendments where appropriate.

Section 5.0 - Land Use

1. Ask the respondent the area of the different landuse categories the household has sole access to (Q5.1.1 to 5.1.12) and record in the appropriate spaces.
2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total area should be the same.
3. If the total area is different find out which one is correct and make amendments where appropriate.

Section 6.2 Communal resources

Note: the code "Not available" means that the resource does not exist. The code "Not Used" means that the resource does exist but is not used by the hh.

7.0 ANNUAL CROP AND VEGETABLE PRODUCTION - SHORT RAINY SEASON

7.1.1 Did the hh **plant** any crops during the **Short Rainy** season? (Yes = 1, No=2) *If the response is 'NO' give main reason Then go to section 7.2*

7.1.2 For each crop planted during 2002/03 **Short Rainy** season provide the following information

- Main Reason (Above)** No rains.....1 Rains came too late2 Does not plant annual crops3
 No money 4 Don't get Vuli season ..5 Illness/social problems6
 Has irrigation & does not follow season (give annual production in Masika)7

Crop Name	Crop Code	Land Clearing	Soil preparation	Planting		Inputs						Harvesting & Storage				Marketing			
				Planned area (acres)	Actual Planted area (acres)	% improved seed	Irrigation use	Fertiliser use	Herbicide use	Fungicide use	Pesticide use	How harvested	How threshed	Area Harvested (acres)	main product code	Quantity harvested (Kgs)	Quantity Stored (kgs)	Quantity sold (kgs)	Mostly sold to
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
.....																			
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.....																			
.....																			
.....																			
.....																			
.....																			
Total Planned/Planted						Total area harvested													

7.1.3 Main reason for difference between **Area Planned** and **Area Planted**

7.1.4 Main reason for difference between **Area Planted** and **Area Harvested**

<p>Land Clearing (Col 3)</p> <p>Mostly bush clearance ...1 Mostly hand slashing2 Mostly tractor slashing ...3 Mostly burning4 No land clearing.....5</p>	<p>Improved seed Use (Col 7)</p> <p>all Improved1 approx 3/4 improved.....2 approx 1/2 improved.....3 approx 1/4 improved....4 less than 1/4 improved ..5 No improved seed used.6</p>	<p>Fertiliser codes (Col 9)</p> <p>Mostly Farm Yard Manure 1 Mostly Compost2 Mostly Inorganic fertiliser ..3 No fertiliser applied4</p>	<p>Threshed/harvested (Col 13 & 14)</p> <p>By hand1 By draft animal2 By human powered tool.....3 By engine driven machine...4 Not applicable9</p>	<p>Mostly sold to (Col 20)</p> <p>Neighbour.....01 Local market/trade store02 Secondary Market...03 Tertiary Market04 Marketing Coop05 Farmer Association06 Largescale farm07 Trader at Farm08 Contract Partner ...09 Did not sell10 Other98</p>	<p>Reason for difference between area planned and planted (Q7.1.3)</p> <p>Drought1 Floods2 Access to land preparation tools (Draft animal/tractors).3 Credit4 Access to seeds/planting material.....5 Access to other inputs6 Other7 Not applicable9</p>	<p>Reason for difference between area planted and harvested (Q7.1.4)</p> <p>Drought1 Rain/flood damage2 Fire damage3 Pest damage4 Animal damage5 Theft6 Illness/social problems7 Other8 Not applicable9</p>
<p>Soil preparation Method (Col 4)</p> <p>Mostly tractor ploughing .1 Mostly Oxen ploughing ..2 Mostly Hand cultivation ..3</p>	<p>Irrigation Use (Col 8)</p> <p>Used on all crop1 Used on 3/4 of crop2 Used on 1/2 of crop.....3 Used on 1/4 of crop4 Used on less than 1/4....5 Not used6</p>	<p>Agrochemical use codes (Col 10,11 & 12)</p> <p>Used on all crop1 Used on 3/4 of crop2 Used on 1/2 of crop.....3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Main product (Col 16)</p> <p>Dry Grain1 Green cob/green pod.....2 Green leaves & Stem.....3 Straw, dry stems etc4 Root, tuber, etc5 Flower eg pyrethrum6 Fruit/bunch7 Other.....8 Not harvested yet9</p>			

Definitions and working page for page 4

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 1	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				crop%	crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check			Crop total check		

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				crop%	crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check			Crop total check		

Land Clearing: Refers to removing trees/bush/grass prior to ploughing
Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc)
Planned Area: Area in **Acres** the household planned to plant before the season started
Actual Planted Area: The area in **Acres** the household was able to plant.
Area Harvested: The area in **Acres** that produced a harvest. This is the same as the area planted minus the area that was destroyed by major flood/pest/ animal/etc damage.

Temporary/Annual Crop:
 Crops which are planted and harvested within a period of 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal basis.

Crop Codes (Cereals /tubers/roots):

Code	Crop
11	Maize
12	Paddy
13	Sorghum
14	Bulrush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatos
23	Irish potatoes
24	Yams
25	Cocoyams
26	Onions
27	Ginger

Vegetable Codes:

Co	Crop
-de	
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkins
93	Cucumber
94	Egg Plant
95	Water Mellon
96	Cauliflower

Crop Codes Legumes Oil & fruit:

Code	Crop
31	Beans
32	Cowpeas
33	Green gram
35	Chick peas
36	Bambara nuts
37	Field peas
41	Sunflower
42	Simsim
43	Groundnut
47	Soyabeans
48	Caster seed

Cash Crop Codes:

Code	Crop
50	Cotton
51	Tobacco
53	Pyrethrum
62	Jute
19	Seaweed

Instructions for calculating the area of mixed crops in a mixture.

- If the mixed crop is mixed annual only enter the total area of the field in the REMAINING AREA UNDER TEMPORARY CROPS. and goto step 1 of these instructions.
- If the mixed crop is mixed permanent and annual try to get the % occupied by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annual crops in the mix, Step C
- Number of trees method to calculate annual crop areas in a perant-annual crop mix/
 - list each of the permanent crops in column b and enter the ground area per acre for each permanent crop (from instructions for page 6) in column 'd'.
 - obtain the number of permanent trees in the mix from the respondent and enter the number in column 'e'.
 - calculate the area occupied by each crop by multiplying column 'd' with column 'e' and sum these to obtain the total area of permanent crops in the mix.
 - subtract the total area of permanent crops in the mix from the total area of mix and enter the result in the total area under temporary crops.
 - proceed to step 1 to calculate the area under each temporary crop.

- Enter the name of each annual crop in the mix & estimate the percentage of each crop.
- Using the percentages for each crop calculate the area of each crop from the REMAINING AREA UNDER TEMPORARY CROPS.
- After completing this exercise for all fields, sum the area of each crop in the mix plus any monocrops and enter totals in section 7.1 col 6.
- Obtain an estimate of the planned area for each crop and enter it in column 5
- If the area harvested is different to the area planted estimate the harvest area
- Once the quantity harvested is obtained calculate the Yield (Metric tonnes/acre) & compare the figure with the norms given in the crop codes box. If it is excessively different check the area and the amount harvested.

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION - LONG RAINY SEASON

7.2.1 Did the hh plant any crops during the LONG RAINY season? (Yes=1 No=2)

If the response is 'NO' give main reason

Then go to section 7.3

Main Reason (Above) No rains....1 Rains came too late2 Does not plant annual crops3
No money 4 Illness/social problems ..5

7.2.2 For each crop planted during 2002/03 Long Rainy season provide the following information

Crop Name	Crop Code	Land Clearing	Soil preparation	Planting		Inputs						How harvested	How threshed	Harvesting & Storage			Marketing		
				Planned area (acres)	Actual Planted area (acres)	% improved seed	Irrigation use	Fertiliser use	Herbicide use	Fungicide use	Pesticide use			Area Harvested (acres)	main product code	Quantity harvested (Kgs)	Quantity Stored (Kgs)	Quantity sold (kgs)	mostly sold to
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
.....																			
.....																			
.....																			
.....																			
.....																			
.....																			
.....																			
.....																			
.....																			
.....																			
.....																			
Total Planned/Planted						Total area harvested													

7.2.3 Main reason for difference between Area Planned and Area Planted

7.2.4 Main reason for difference between Area Planted and Area Harvested

<p>Land Clearing (Col 3) Mostly bush clearance ...1 Mostly hand slashing2 Mostly tractor slashing ...3 Mostly burning4 No land clearing5</p>	<p>Improved seed Use (Col 7) all Improved1 approx 3/4 improved.....2 approx 1/2 improved.....3 approx 1/4 improved....4 less than 1/4 improved ..5 No improved seed used.6</p>	<p>Fertiliser codes (Col 9) Mostly Farm Yard Manure 1 Mostly Compost2 Mostly Inorganic fertiliser ..3 No fertiliser applied4</p>	<p>Threshed/harvested (Col13 & 14) By hand1 By draft animal2 By human powered tool.....3 By engine driven machine...4 Not applicable9</p>	<p>Mostly sold to (Col 20) Neighbour.....01 Local market/trade store02 Secondary Market...03 Tertiary Market04 Marketing Coop ...05 Farmer Association06 Largescale farm ...07 Trader at Farm08 Contract Partner ...09 Did not sell10 Other98</p>	<p>Reason for difference between area planned and planted (Q7.2.3) Drought1 Floods2 Access to land preparation tools (Draft animal/tractors).3 Credit4 Access to seeds/planting material.....5 Access to other inputs6 Other8 Not applicable9</p>	<p>Reason for difference between area planted and harvested (Q7.2.4) Drought1 Rain/flood damage2 Fire damage3 Pest damage4 Animal damage5 Theft6 Illness/social problems7 Other8 Not applicable.....9</p>
<p>Soil preparation Method (Col 4) Mostly tractor ploughing .1 Mostly Oxen ploughing ..2 Mostly Hand cultivation ..3</p>	<p>Irrigation Use (Col 8) Used on all crop1 Used on 3/4 crop2 Used on 1/2 crop3 Used on 1/4 of crop.....4 Used on less than 1/4 ...5 Not used6</p>	<p>Agrochemical use codes (Col 10,11 &12) Used on all crop1 Used on 3/4 of crop2 Used on half of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Main product (Col 16) Dry Grain1 Green cob/green pod.....2 Green leaves & Stem.....3 Straw, dry stems etc4 Root, tuber, etc5 Flower eg pyrethrum6 Fruit/bunch.....7 Others8 Not harvested yet9</p>			

Definitions and working page for page 5

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 1	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				Temp crop%	Temp crop area
Permanent/Temporary crop name 1					
Permanent/Temporary crop name 2					
Permanent/Temporary crop name 3					
Total area check				Temporatory crop total check	

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				Temp crop%	Temp crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check				Temporatory crop total check	

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				Temp crop%	Temp crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check				Temporatory crop total check	

Definitions and working page for page 5

Land Clearing: Refers to removing trees/bush/grass prior to ploughing
Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc)
Planned Area: Area in **Acres** the household planned to plant before the season started
Actual Planted Area: The area in **Acres** the household was able to plant.
Area Harvested: The area in **Acres** that the household got most of its production from. This is the same as the area planted minus the area that was destroyed by major flood/pest/ animal/etc damage

Temporary/Annual Crop: Crops which are planted and harvested within a period of 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal basis.	Crop Codes (Cereals /tubers/roots): Code Crop 11 Maize 12 Paddy 13 Sorghum 14 Bulrush Millet 15 Finger Millet 16 Wheat 17 Barley 22 Sweet Potatos 23 Irish potatos 24 Yams 25 Cocoyams 26 Onions 27 Ginger	Vegetable Codes: Code Crop 27 Ginger 86 Cabbage 87 Tomatoes 88 Spinach 89 Carrot 90 Chillies 91 Amaranths 92 Pumpkins 93 Cucumber 94 Egg Plant 95 Water Mellon 96 Cauliflower 20 Garlic	Crop Codes Legumes Oil & fruit: Code Crop 31 Beans 32 Cowpeas 33 Green gram 35 Chick peas 36 Bambara nuts 37 Field peas 41 Sunflower 42 Simsim 43 Groundnut 47 Soyabeans 48 Caster seed
	Cash Crop Codes: Code Crop 50 Cotton 51 Tobacco 53 Pyrethrum 62 Jute 19 Seaweed		

Instructions for calculating the area of mixed crops in a mixture.

- A. If the mixed crop is mixed annual only enter the total area of the field in the REMAINING AREA UNDER TEMPORARY CROPS. and goto step 1 of these instructions.
 - B. If the mixed crop is mixed permanent and annual try to get the % occupied by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annual crops in the mix (Step C).
 - C. Number of trees method to calculate annual crop areas in a perenent-annual crop mix
 - (i) list each of the permanent crops in column b and enter the ground area per acre for each permanent crop (from instructions for page 6) in column 'd'.
 - (ii) obtain the number of permanent trees in the mix from the respondent and enter the number in column 'e'.
 - (iii) calculate the area occupied by each crop by multiplying column 'd' with column 'e' and sum these to obtain the total area of permanent crops in the mix.
 - (iv) subtract the total area of permanent crops in the mix from the total area of mix and enter the result in the total area under temporary crops.
 - (v) proceed to step 1 to calculate the area under each temporary crop.
1. Enter the name of each annual crop in the mix & estimate the percentage of each crop.
 2. Using the percentages for each crop calculate the area of each crop from the REMAINING AREA UNDER TEMPORARY CROPS.
 3. After completing this exercise for all fields, sum the area of each crop in the mix plus any monocrops and enter totals in section 7.1 col 6.
 4. Obtain an estimate of the planned area for each crop and enter it in column 5
 5. If the area harvested is different to the area planted estimate the harvest area
 6. Once the quantity harvested is obtained calculate the Yield (Metric tonnes/acre) & compare the figure with the norms given in the crop codes box. If it is excessively different check the area and the amount harvested.

7.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION

7.3.1 Does your household have any permanent/perennial crops or fruit trees (Yes=1, No=2) 1

7.3.2 For each of the permanent crops and fruit trees owned by the household provide the following information

		Size of production unit				Inputs					Harvesting & Storage					Marketing		
Perm- -anent Crop Name	Perman- -ent crop/ fruit tree crop Code	MONOCROP		MIXED CROP		Irrig- -at -ion use	Fert- -ilis- -er use	Herb- -ic -ide use	Fun- -gic -ide use	Pest- -ici- -de use	Area Harvested (acres)	Number of mature plants	main prod- -uct code	Quantity harvested (kgs)	If no harvest give re- -ason	Quantity Stored (Kgs)	Quantity sold (kgs)	mostly sold to
		Area of Plants/ trees/Bushes in MONO CROP (acres)	Area covered by Permanent Crop in a MIXED CROP (acre)	Number of permanent Plants/trees in a MIXED CROP	(4)													
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		

<p>Irrigation Use (Col 6)</p> <p>Used on all crop1</p> <p>Used on most crop2</p> <p>Used on half crop3</p> <p>Used on small amount of crop.4</p> <p>Not used on crop5</p>	<p>Fertiliser codes (Col 7)</p> <p>Mostly Farm Yard Manure.....1</p> <p>Mostly Compost2</p> <p>Mostly Inorganic fertiliser3</p> <p>No fertiliser applied4</p>	<p>Agrochemical use codes (Col 8, 9 & 10)</p> <p>Used on all crop1</p> <p>Used on 3/4 of crop2</p> <p>Used on 1/2. of crop3</p> <p>Used on 1/4 of crop4</p> <p>less than 1/4 of crop5</p> <p>Not used6</p>	<p>Main product (Col 13)</p> <p>Dry Grain.....1</p> <p>Green cob/green pod..2</p> <p>Green leaves & Stem..3</p> <p>Straw, dry stems etc ...4</p> <p>Root, tuber, etc5</p> <p>Flower6</p> <p>Fruit/bunch.....7</p> <p>Other8</p> <p>Not harvested yet9</p>	<p>Main Reason for no harvest(Col 15)</p> <p>Crop not harvested yet1</p> <p>Drought2</p> <p>Rain/flood damage3</p> <p>Fire damage4</p> <p>Pest damage5</p> <p>Animal damage6</p> <p>Theft7</p> <p>Other8</p> <p>Not applicable9</p>	<p>Mostly sold to (Col 18)</p> <p>Neighbour.....01</p> <p>Local market/trade store....02</p> <p>Secondary Market03</p> <p>Tertiary Market04</p> <p>Marketing Coop05</p> <p>Farmer Association06</p> <p>Largescale farm07</p> <p>Trader at farm08</p> <p>Contract Partner09</p> <p>Did not sell10</p> <p>Other98</p>
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Definitions and working page for page 6

Permanent Crop:

Permanent crops: are sown or planted once and then , they occupy the land for some years and need not to be replanted after each annual harvest. Permanent crops are mainly trees (e.g., apples) but also bushes and shrubs (e.g., berries), palms (e.g., dates), vines (e.g., grapes), herbaceous stems (e.g., bananas) and stemless plants (e.g., pineapples).

Total number of plants:

This includes both mature harvestable plants and immature non harvestable plants.

Number of mature plants: This is the number of plants which bared harvest.

Instructions for Permanent crop mono stands and mixtures

- A.** For fields that are **monocrop permanent**, **ONLY** enter the **area of plants in column 3**.
- B.** For fields that are **mixed permanent** calculate the area of each crop based on the % **occupied by each crop method** (NOT using the number of trees method) and **ONLY** enter the area in **column 4**
- C.** For fields that are **mixed permanent/annual** either:
- **ONLY** enter the **area in column 4** if the area of the permanent crop was based on the % **occupied by each crop method**
- OR**
- **ONLY** enter the **number of trees in column 5** if the number of permanent crop plants was provided

Permanent crops (oils):

Code	Crop	Ground area/plant
44	Palm Oil	0.00049
45	Coconut	0.00037
46	Cashewnut	0.00062

Permanent (Cash crops)

Code	Crop	Ground area/plant
53	Sisal	0.00012
54	Coffee	0.00049
55	Tea	0.00037
56	Cocoa	0.00049
57	Rubber	0.00099
58	Wattle	0.00099
59	Kapok	0.00124
60	Sugar Cane	0.00012
61	Cardamom	0.00049
63	Tamarin	0.00099
64	Cinamon	0.00124
65	Nutmeg	0.00099
66	Clove	0.00074
18	Black Pepper	0.00037
34	Pigeon pea	0.00025
21	Cassava	0.00019
75	Pineapple	0.00006

Permanent Crops:

Code	Crop	Ground area/plant
70	Passion Fruit	0.00074
71	Banana	0.00037
72	Avocado	0.00099
73	Mango	0.00099
74	Papaw	0.00037
76	Orange	0.00074
77	Grapefruit	0.00074
78	Grapes	0.00012
79	Mandarin	0.00074
80	Guava	0.00074
81	Plums	0.00074
82	Apples	0.00074
83	Pears	0.00074
84	Peaches	0.00074
85	Lime/lemon	0.00074
68	Pomelo	0.00099
69	Jack fruit	0.00074
97	Durian	0.00074
98	Bilimbi	0.00074
99	Rambutan	0.00074
67	Bread fruit	0.00099
38	Malay apple	0.00074
39	Star fruit	0.00074

Working Area/calculation space

7.4 Main use of Secondary Products

7.5 Did you use **Secondary Products** from any of your crops during the 2002/03 year. (Yes=1, No=2)

If the response is 'NO' go to section 8.0

7.6 List the **main crops** with **secondary products** and provide the following details:

S/N	Crop name	Crop Code	Secondary product	Prod code	Used for	Unit	Total no of Units	No of units sold	Total value of sold units (Tsh.)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.6.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Main product (Col 4)

Green leaves & Stem...1 Flower ...4
 Straw, dry stems etc ...2 Fruit5
 Root, tuber, etc3 Other8

Mainly used for (Col 5)

Feeding to livestock ..1 Consumed by hh4
 Building material2 Sold5
 Fuel for cooking3 Did not use.....6

Unit (Col 6)

Loose Bundle/bunch1 kg5
 Compressed bunch/Bail...2 Stems6
 Tin3 Sack7
 Bucket4 Other8

8.0 AGROPROCESSING AND BY-PRODUCTS

8.1 Did the household **process** any of the products harvested on the farm during 2002/03 (Yes=1, No=2)

If the response is 'NO' go to section 9.0

8.2 List the **main crops processed** and provide the following details:

S/N	Crop name	Crop Code	Proc-ess -ed	Main Prod -uct code	Used for	Unit	Quantity of main product	Quantity Sold	Whe -re sold	By-Prod -uct code	Used for	Unit	Quantity of by-product	Quan -tity Sold
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
8.2.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Processed (Col 3)

On farm by hand1
 On farm by machine2
 By neighbours machine...3
 By farmers association ...4
 By Cooperative union5
 By trader6
 On Large scale farm7
 By factory9
 Other8

Main product code (Col 4)

Flour/meal.....1
 Grain2
 Oil3
 Juice4
 Fiber.....5
 Pulp6
 Sheet7
 Other8

Used for (Col 5 & 11)

Household/human consumption ..1
 Fuel for cooking2
 Sale3
 Animal consumption4
 Did not use5
 Other8

Where sold (Col 9)

Neighbour.....1
 Local market/trade store2
 Secondary Market3
 Marketing Coop4
 Farmer Association5
 Largescale farm6
 Trader at farm7
 Did not sell9
 Other8

By-product code (Col 10)

Bran01
 Cake02
 Husk03
 Juice04
 Fiber05
 Pulp06
 Oil07
 Shell08
 Other98

Unit (Col 6 & 12)

Loose bundle/bunch1
 Compressed bunch/bail...2
 Tin3
 Bucket4
 kg5
 litre6
 Other8

Definition and working page for page 7					
Temporary/annual crop codes for section 7.4 col 2				General Definition for Section 7.4	
Crop Code	Crop Name	Secondary Product Question 7.4	Agroprocessing & bi-products		
			Main Products (Section 8.0)	Bi-product (Sect 8.0)	
				1	2
11	Maize	Stems/straw	Flour	Bran	
12	Paddy	Stems/straw	polished rice grain	husk	
13	Sorghum	Stems/straw	flour		
14	Bulrush Millet	Stems/straw	flour		
15	Finger Millet	Stems/straw	flour		
16	Wheat	Stems/straw	flour	Bran	
17	Barley	Stems/straw	flour	Bran	
21	Cassava	Leaves/stems	flour		
22	Sweet Potatoes	Leaves			
23	Irish potatoes				
24	Yams				
25	Cocoyams				
26	Onions				
27	Ginger				
31	Beans	straw/stems			
32	Cowpeas	straw			
33	Green gram	straw			
34	Pigeon peas	stems			
35	Chick peas	straw			
36	Bambara nuts	straw/stems	oil	cake	
41	Sunflower	Stems	oil	Cake	
42	Simsim	straw	oil	Cake	
43	Groundnut	straw	oil	Cake	
47	Soya beans	straw	oil	Cake	
48	Caster seed	straw	oil	Cake	
75	Pineapple		Juice		
50	Cotton	straw	fibre/seed	oil	cake
51	Tobacco				
53	Pyrethrum	straw	insecticide		
62	Jute		fibre		
86	Cabbage				
87	Tomatoes				
88	Spinach				
89	Carrot				
90	Chillies		dried powder		
91	Amaranths				
92	Pumpkins	leaves			
93	Cucumber				
94	Egg Plant				
95	Water Mellon				
96	Cauliflower				
44	Oil Palm	leaves	oil outer	oil inner	cake
45	Coconut	leaves/husk	milk		
46	Cashewnut	Fruit	fruit juice	shell liquid	
52	Sisal	stems	fibre	oil	
54	Coffee	stems	beans	husks	
55	Tea	stems			
56	Cocoa	stems	cocoa	cocoa butter	
57	Rubber	stems			
58	Wattle	stems			
59	Kapok	stems			
60	Sugar Cane		sugar/juice	molasses	ethanol
61	Cardamom				
71	Banana	leaves/stems	juice		
72	Avocado	stems			
73	Mango	stems	Juice		
74	Paw paw		Juice		
76	Orange	stems	Juice		
77	Grape fruit	stems	Juice		
78	Grapes	stems	Juice		
79	Mandarin	stems	Juice		
80	Guava	stems			
81	Plums	stems			
82	Apples	stems			
83	Pears	stems			
84	Pitches	stems			
85	Lime/Lemon	stems	juice		

Secondary Products: Second most important product from a crop. Eg a household may consider the grain from maize as the primary product and the stems/straw as the secondary product.

Note: Secondary products are NOT the same as bi-products. By-products are the result of a processing activity and are dealt with in section 8.0.

Procedures for Questions

Q 7.6 Details of Secondary Products:

- From the list of crops in Q 7.1.2, 7.2.2 & 7.3.2, ask the respondent if the hh used any secondary products. List the crop names and codes in column 1 and 2 for those crops that the hh used secondary products.
- For the listed crops give details of the secondary products used.
- If no units were sold, enter "0" in columns 8 & 9.

Q 8.0 Agroprocessing & bi-products:

- From the list of crops in Q 7.1.2, 7.2.2 & 7.3.2, ask the respondent if the hh processed any of these crops during the 2002/03 agriculture year. List the crop names and codes in column 1 and 2 for those crops that were processed by the hh.
- For the listed crops give details of the secondary crops used.
- If no main product or bi-product was sold enter "0" in columns 8 & 14.
- If no bi-product was produced enter "0" in columns 10, 11, 12, 13 & 14.

Question Specific Definitions

Agroprocessing and bi-products (Q 8.2)
(Note: Agroprocessing refers to the processing of crops for hh utilisation and for sale)

Main Product (Col 5):
Main Product after processing. Eg for Paddy it may be the polished grain. For Maize it may be flour.

Bi-Product code (Col 11): is the secondary residue after processing, eg for rice it may be the husk. for maize it may be the bran.

Mainly used for (Col 5 & 11):
- Consumed by household can mean eaten or utilised in another way (eg by animals) by the hh.

9.0 CROP STORAGE							
9.1	Did the household store any crops during the 2002/03 agriculture year? (Yes =1, No=2) <input style="float:right;" type="checkbox"/>						
<i>If the response is 'NO' go to section 10.0</i>							
9.2 For each of the listed crops provide the following details on storage							
S/N	Crop Name	Stor- ed Y=1 No=2	Current Quantity Stored (kg)	Method of Storage	Normal duration of storage	Main pur- pose	Estimate
							Estimate Storage loss
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
9.2.1	Maize	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.2	Paddy	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.3	Sorghum/Millet	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.4	Beans, peas, etc	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.5	Wheat	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.6	Coffee	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.7	Cashewnut	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.8	Tobacco	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.9	Cotton	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.10	Groundnuts/bambara	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Main method of Storage (Col 4)

In locally made traditional structure..1
 In Improved locally made structure .2
 In modern store3
 In Sacks/open drum.....4
 In airtight drum5
 Unprotected pile6
 Other8

Duration of Storage (Col 5)

Less than 3 months1
 Between 3 and 6 months2
 Over 6 months3

Main purpose of storage (Col 6)

Food for the household1
 To sell for higher price2
 seed for planting.....3
 Other8

Storage loss (Col 67)

Little or no loss1
 Up to 1/4 loss2
 Between 1/4and 1/2 loss ..3
 Over 1/2 loss4

10.0 MARKETING							
10.1	Did the household sell any crops from the 2002/03 agriculture year? (Yes=1, No=2) <input style="float:right;" type="checkbox"/>						
<i>(If the response is 'YES' or 'NO' go to section 10.2)</i>							
10.2 For each of the following crops what was the main marketing problem faced by the household during 02/03							
	Crop	Main problem		Crop	Main problem	10.3 From the list of marketing problems below, for all produce rank the five most important problems	
	(1)	(2)		(1)	(2)		
10.2.1	Maize	<input type="checkbox"/>	→	10.2.9	Vegetables	<input type="checkbox"/>	
10.2.2	Rice	<input type="checkbox"/>		10.2.10	Tree Fruits	<input type="checkbox"/>	
10.2.3	Sorghum/millet	<input type="checkbox"/>		10.2.11	Cashewnut	<input type="checkbox"/>	10.3.1
10.2.4	Wheat	<input type="checkbox"/>		10.2.12	Cotton	<input type="checkbox"/>	10.3.2
10.2.5	Beans, peas etc	<input type="checkbox"/>		10.2.13	Tobacco	<input type="checkbox"/>	10.3.3
10.2.6	Cassava	<input type="checkbox"/>		10.2.14	Groundnuts/bamabara	<input type="checkbox"/>	10.3.4
10.2.7	Bananas	<input type="checkbox"/>		10.2.15	Trees/timber/poles	<input type="checkbox"/>	10.3.5
10.2.8	Coffee	<input type="checkbox"/>		10.2.16	Fish	<input type="checkbox"/>	

Market problems (Q10.2 & 10.3 (Col 2))

Open market price too low01 Market too far05 Government Regulatory board problems...09
 No transport02 Farmer association problems06 Lack of market Information10
 Transport cost too high03 Cooperative Problems07 Other (specify)98
 No buyer04 Trade Union problems08 Not Applicable99

10.4	What was the main reason for not selling crops during 2002/03 year <input style="float:right;" type="checkbox"/>						
Reason for not selling crops (Q10.4)							
Price too low1 Farmer association problems4 Government regulatory board problems7 Production insufficient to sell.....2 Cooperative Problems.....5 Other (specify)8 Market too far3 Trade Union problems6 Not Applicable9							

Definition and working page for page 8**Question Specific definitions (Section 9.0)****Crop Storage, Section 9****Method of Storage (column 4)**

- **Locally made structure:** The structures that have been inherited from their fore fathers
- **Improved locally made structure:** Traditional structures that have been improved using modern technology.
- **Normal duration of storage:** Often there are stored stocks from different seasons and different years. The normal duration refers to the number of months that the most of the crop is stored for.

Marketing problems Q 10.2 and 10.3 col 2:

- **Farmer Association:** A village or community based group of farmers who have formed an organisation to purchase inputs/sell/store their products in order to achieve a better price for their products.
- **Cooperative Union:** Large inter-village /community organisation set up on a district/regional or national basis for providing inputs, marketing and storing farmers products.
- **Government Regulatory board:** Government control body for setting prices and controlling quality of certain agriculture commodities.

Procedures for Questions**Q 9.2 Details of Crop Storage:**

1. For the crops listed indicate if the household stored any during 2002/03 in column 2.
2. Check that the crops correspond to the crop lists in Q 7.1.2, 7.2.2 & 7.3.2. If there is a difference inquire on the reason why. It is possible that a crop was missed during the enumeration of these questions and if so make necessary amendments
3. For the listed crops give details of storage.

Q 10.2 Details on Crop Marketing:

1. For each of the crops listed indicate the main problems in marketing during 2002/03 in column 2.
2. Check if the crops correspond to the crop lists list in Q 7.1.2, 7.2.2 & 7.3.2. If there is a difference inquire on the reason why. It is possible that a crop was missed during the enumeration of these questions and if so make necessary amendments

Q 10.3 Ranking of market problems:

Rank in order of importance the 5 most important marketing problems from the codes in the Market Problems code box.

Working Area/calculation space

11.0 ON-FARM INVESTMENT								
11.1 Does the household practice irrigation (Yes=1, No=2) <input style="float:right" type="checkbox"/>								
<i>If the response is 'NO' go to section 11.3</i>								
S/N	Source of Irrigation water	Method of obtaining water	Method of application	Irrigatable area (acres)	Area of irrigated land this year (acres)			
	(1)	(2)	(3)	(4)	(5)			
11.1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>			
Source of irrigation water (Col 1) River1 Borehole5 Lake2 Canal6 Dam3 Tap Water7 Well4			Method of obtaining water (Col 2) Gravity1 motor pump4 Hand bucket2 Other8 Hand pump3		Method of application (Col 3) Flood1 Sprinkler2 water hose.....3 Bucket/watering can4			
11.2 Does the household have any erosion control/water harvesting facilities on their land (Yes=1, No=2) <input style="float:right" type="checkbox"/>								
<i>If the response is 'NO' go to section 12.0</i>								
S/N	Type of erosion control/water harvesting structure	Number of structures	Year of construction		Type of erosion control/water harvesting structure	Number of structures	Year of construction	
	(1)	(2)	(3)		(1)	(2)	(3)	
11.2.1	Terraces	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.5	Tree belts	<input type="text"/> <input type="text"/>	
11.2.2	Erosion control bunds	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.6	Water harvesting bunds	<input type="text"/> <input type="text"/>	
11.2.3	Gabions/Sandbags	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.7	Drainage ditches	<input type="text"/> <input type="text"/>	
11.2.4	Vetiver Grass	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.8	Dam	<input type="text"/> <input type="text"/>	

12.0 ACCESS TO FARM INPUTS AND IMPLEMENTS									
12.1 Give details of farm inputs used during the 2002/03 agriculture year									
S/N	Input name	Used Yes=1 No=2	Source	Distance to Source	Source of Finance	Reason for not using	Quality of Input	Plan to use next year Yes =1,No=2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
12.1.1	Chemical Fertiliser	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.2	Farm Yard Manure	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.3	Compost	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.4	Pesticide/fungicide	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.5	Herbicide	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.6	Improved Seeds	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.7	Other	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Source (Col 3) Cooperative01 Local farmers group02 Local market/Trade Store ...03 Secondary Market04 Development project05 Crop buyers06 Large scale farm07 Locally produced by hh08 Neighbour09 Other (specify)98 Not applicable99		Distance to source (Col 4) Less than 1 Km1 Between 1 and 3km2 between 3 and 10 km...3 Between 10 and 20 km ...4 20km and above5 not applicable9		Source of finance (Col 5) Sale of farm products .1 Other income generating activities ...2 Remittances3 Bank Loan/Credit.....4 produced on farm5 Other8 Not applicable9		Reason for not using (Col 6) Not available1 Price too high2 No money to buy3 Too much labour required..4 Do not know how to use....5 Input is of no use6 Locally produced by hh7 Other8 Not applicable9		Quality of input (Col 7) Excellent1 Good2 Average3 Poor4 Does not work .5 not applicable...9	

Definition and working page for page 9

Overview of Investment activities (Section 11.0)

Investment activities:

Investment activities refer to medium to long term farm development structures and projects. This can be Irrigation structures, erosion and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

Question Specific Definitions (Q 11.1)

Source of irrigation Water (Col 1): The main source of water from which water is obtained for irrigation.

Method of obtaining water (Col 2): The mechanism by which the water is extracted from the source,

Application Method (Col 3): How the water is applied on the field.

- Flood - is the application of water down the slope of the land by means of gravity
- Sprinkler - is the application of pressurised water through pipes. The water passes through a device which sprays the water onto the crop from above.

Irrigatable Area (Col 4): The area the irrigation system is designed to cover in acres.

Area of irrigated land this year (Col 5): Area of land under irrigation during the 2002/03 agric year. This is the physical area and NOT the cumulative area of 2 or more croppings.

Q 11.1 Irrigation

1. If the hh practices irrigation give details on the main source, main method of obtaining and applying water.
2. Cross check column 8, Q 7.1.2, 7.2.2 & 7.3.2 to check if irrigation was used on any crops.

Question Specific Definitions (Q 11.3)

Erosion control/water harvesting structure (Col 1)

Terraces: Are structures constructed on the side of a hill to provide a level ground to plant crops. They are often used to trap water for paddy/lowland rice production.

Erosion Control Bunds: These are banks of earth/stones built perpendicular to the slope to slow down water and prevent erosion. They are different to Terraces in that the soil behind the banks are not level.

Gabions: A gabion is a wire mesh box filled with rocks/stones and used to control or prevent gully erosion

Sandbags Used to prevent or control gully erosion

Tree belts/Wind breaks: A band of trees planted perpendicular to the prevailing wind whose main purpose is to slow down wind speed

Water Harvesting bunds: A bank of earth constructed horizontal to the slope of the land to trap water. They are usually banana shaped.

Dam: A bank of earth/material which traps river water to form a catchment of water behind it.

Q 11.3 erosion control/water harvesting

1. Number of structures refers to the number of working/maintained structures and does not include derelict or irreparable structures.
2. Year of construction refers to the year that the structures were first constructed. It is not the year that the structures were last maintained.

Farm Inputs (Q 12.1.1 to 12.1.7)

Farm yard Manure: An organic fertiliser made on farm composed of animal dung.

Compost: An organic fertiliser made on farm from decomposed plant material

Pesticide: Chemical used to either protect the plant from or kill insects, birds, molluscs, mites, etc attacking the plant

Fungicide: is a chemical that is used to protect the plant from or control a fungal disease.

Herbicide: A chemical used to control weeds.

Q 12.0 Farm Inputs

1. Indicate in column 1 whether each of the inputs are used or not.
2. Complete cols 3, 4, 6, and 7 for inputs that are used and place '9' in column 5 (for not applicable).
3. Complete cols 5 & 7 for inputs not used.

NOTE: Cross check column 6, 7, 8 & 9, Q 7.1.2, 7.2.2 & 7.3.2 to check what inputs were used.

12.2 Give details of farm implements and assets used and owned by the household during 2002/03 agriculture year									
S/N	Equipment/Asset Name	Number		Used in 2002/03 Yes 1, No=2	Source of Equip-ment	Source of Fin-ance	Reason for not using	Plan to use next year Yes=1, No=2	
		Owned	rent-ed						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
12.2.1	Hand Hoe	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.2	Hand Powered Sprayer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.3	Oxen	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.4	Ox Plough	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.5	Ox Seed Planter	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.6	Ox Cart	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.7	Tractor	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.8	Tractor Plough	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.9	Tractor Harrow	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.10	Shellers/threshers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Source of equipment (Col 5) Neighbour.....1 Development project5 Cooperative2 Government6 Local farmers association.....3 Large scale farm7 market/Trade store4 Other (specify)8			Source of finance (Col 6) Sale of farm products1 Other income generating activities .2 Remittances3 Bank Loan4 Credit5 Other8 Not applicable9		Reason for not using (Col 7) Not available1 Price too high2 No money to buy/rent.....3 Too much labour required...4 Equipment/Asset of no use ...5 Other8 Not applicable9		
13.0 USE OF CREDIT FOR AGRICULTURE PURPOSES									
13.1	During the year 2002/03 did any of the hh members borrow money for agriculture (Yes = 1, No = 2) (if the response is 'NO' go to section 13.3)							<input type="text"/>	
13.2 Give details of the credit obtained during the agricultural year 2002/03 (if the credit was provided in kind , for example by the provision of inputs, then estimate the value in 13.2.9)									
	use codes to indicate source	Source "a"		Source "b"		Source "c"			
	Provided to Male = 1, Female 2	<input type="text"/>		<input type="text"/>		<input type="text"/>			
		tick the boxes below to indicate the use of the credit		tick the boxes below to indicate the use of the credit		tick the boxes below to indicate the use of credit			
13.2.1	Labour	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.2	Seeds	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.3	Fertilisers	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.4	Agrochemicals	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.5	Tools/equipment	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.6	Irrigation structures	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.7	Livestock	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.8	Other	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.9	Value of Credit (Tsh.)	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.10	Value of repayment (Tsh.)	<input type="text"/>		<input type="text"/>		<input type="text"/>			
13.2.11	Period of repayment (months)	<input type="text"/>		<input type="text"/>		<input type="text"/>			
Source of credit (Q 13.2-a, b and c) Family, friend or relative...1 Commercial Bank.....2 Cooperative3 Savings & credit Soc4 Trader/trade store5 Private individual6 Religious Organisation/NGO/Project ...7 Other (Specify).....8									
13.3	If the answer to question 13.1 above is 'NO' what is the reason for not using Credit?							<input type="text"/>	
Reason for not using credit (Q13.3) Not needed ...1 Not available ...2 Did not want to go into debt....3 Interest rate/cost too high.....4 Did not know how to get credit....5 Difficult bureaucratic procedure ...6 Credit granted too late ...7 Other (specify) ...8 Dont know about credit9									

Definition and working page for page 10

Question Specific Definitions (Q 12.2)

Farm Implements (Col 1):

Hand powered Sprayer: Knapsack or bicycle pump sprayer

Reason for not using (Col 6): Be careful about using "too much labour required" as this code generally refers to hand hoes only. The codes for this should "NOT" be read out to the farmer as a prompt.

Note: If remittance is given as the main source of finance check for a response to remittances in **question 2.2.5**

Procedures for questions

Q 12.0 Farm Inputs

1. Indicate in column 2 and 3 whether each of the implements were used or not.
2. Complete cols 4, 5, 6, and 8 for inputs that are used and place '9' in column 7 (for not applicable).
3. Complete cols 7 & 8 for inputs not used.

Question Specific Definitions (Q 13.0)

Section 13.0 Credit for Agriculture Purposes

Credit is defined as finance in the form of cash or in-kind contributions (eg direct provision of inputs, machinery, livestock or other material) for the purpose of crop and livestock production whereby the value of the credit must be paid back to the borrower. The value of repayment may either be with interest or interest free.

Credit may be paid back in the form of cash or agriculture produce.

Section 13.0 Credit for Agriculture Purposes

Value of credit: is the amount in cash received from the borrower. If the credit was paid in-kind, estimate the value of this.

Value of repayment: This is the amount to be repaid to the borrower and includes the principal amount (value of credit) plus any interest repayment. If the credit is paid back in agriculture produce, then the cash value of this must be estimated.

Period of repayment: This is the time in months the borrower has given for full repayment.

Section 13.2 Source of agriculture credit

If the farmer obtained credit from more than one source then use the columns "a", "b" and "c" for the different sources of credit. Start with the main source of credit in column "a".

NOTE: Check for use of inputs in column 7, 8 & 9 of questions 7.1.2, 7.2.2 & 7.3.2.

Working Area/calculation space

Large empty rounded rectangular area for working area/calculation space.

14.0 TREE FARMING/AGROFORESTRY

14.1 Did your household have any **Planted Trees** on your land during 2002/03 agric year? (Yes =1, No=2)
If the response is 'NO' go to section 14.3

14.2 Give details of the **planted trees** you have on your land.

S/N	Tree Code	Number of trees	Where planted	Main Use	Secondary Use	Number of Plank trees Sold	Number of Pole trees Sold	hh utilised		Total Value (Tsh.)
								Poles	Timber	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
14.2.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Where Planted (Col 3)
 Mostly on field/plot boundaries.1
 Mostly scattered in fields2
 Mostly in plantation/coppice ...3

Use (Col 4 & 5)
 Planks/Timber.....1 Shade5
 Poles2 Medicinal.....6
 Charcoal3 Other8
 Fuel wood4

14.3 Does your village have a **Community tree planting scheme** (Yes=1, No=2)
If the response is 'NO' go to section 15.0

14.4 Household involvement in **community tree planting scheme**

S/N	Distance to community planted forest (Km)	hh Involvement	Main purpose	Main use during 2002/03
	(1)	(2)	(3)	(4)
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

HH involvement (Col 2)
 Only planting1
 Only protection and thinning.....2
 Only cutting3
 Most or all activities.....4

Main Purpose (Col 3)
 Erosion control.....1 Environment rehabilitation ...4
 Production of poles2 Restoration of wildlife5
 production of firewood...3 Other (specify)8

Main Use during 02/03(Col 4)
 Poles1 Not ready to use5
 Timber logs2 Not allowed to use ...6
 Charcoal3 Other (specify)8
 Firewood4

15.0 CROP EXTENSION SERVICES

15.1 Did your household receive **extension advice for crop production** during 2002/03 (Yes=1,No=2)
If the response is 'NO' go to section 16.0

S/N	Extension Provider	Source of extension (Y=1,N=2)	If you pay for extension, what is the cost/yr	Contact farmer /group member (Yes=1,No=2)	No. of visits by extension agency per year	No. of message adopted in the last 3 years	Quality of Service
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
15.1.1	Government extension	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.2	NGO/development project	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.3	Cooperative	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.4	Large Scale farmer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.5	Other.....	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Quality of service (Col 7)
 Very good1 good2 Average.....3 Poor.....4 No Good5

Definition and working page for page 11

General Definitions for section 14.0

Tree Farming/Agroforestry

This section refers to trees **planted** for wood (firewood, poles, planks, carving, charcoal, medicinal, etc, but **NOT** fruit trees). It does **not** include naturally growing trees on the farm (unless special care has been given to promote their establishment) or trees growing naturally on the communal areas.

Tree farming is the planting of trees on an area of land for which the main purpose is the production and regeneration of trees for wood on that land.

Agroforestry: is the planting of trees on land for the purpose of complementing other farming activities like crop and animal production. For the purpose of this questionnaire Agroforestry trees are trees planted on boundaries and scattered throughout fields. The main productive unit in this case is Crops and Livestock.

Section 14.2 Details of planted trees

1. Enter the tree codes of the main species grown by the hh
2. If no planks or poles are sold enter a "0" in columns 8, & 9.
3. Total value includes both value of hh utilised trees and sold trees.
4. If no trees were utilised by the hh or sold enter "0" in column 10

Question Specific Definitions

Tree farming (Section 14.0)

Pole trees (Col 6): These are young trees which have a maximum diameter of 6 inches at the bottom and are often used for house construction. They are often the thinning harvest after 3 - 5 years.

Plank trees (Col 7): Trees for sawing into timber planks.

Animal shade: Trees grown for the purpose of providing shade to animals.

Community tree planting scheme (Section 14.3)

Community Forest: A forest planted on the communal land which is planted, replanted or spot planted by the members of the village.

Crop Extension Services (Section 15.1)

Contact Farmer: A farmer who is used by the extension agent as a focal point to demonstrate new interventions. The contact farmer then passes on the message to other farmers

Group member: Member of a group under which the contact farmer leads

Adoption: This is the uptake of an intervention for 2 or more years

Section 15.1 Crop Extension Services

1. For each of the extension providers ask if the hh received extension during 2002/2003 agriculture year and indicate in column 2.
2. For each of the providers complete the rest of the columns

Tree Name Guide Col 1

Code	Local Name	Botanical Name	English Name
01		<i>Senna siamea</i>	Cassod tree
02	Msongoma	<i>Gravellia</i>	Silver oak
03	Mbarika	<i>Azelia quanzensis</i>	Pod mahogany
04	Mkeshia	<i>Acacia spp</i>	Umbrella thorn
05	Msindano	<i>Pinus spp</i>	Pine
06	Mkaratusi	<i>Eucalyptus spp</i>	Red River Gum
07		<i>Cyprus spp</i>	Cyprus tree
08	Mtndoo	<i>Calophyllum inophyllum</i>	
09	Mvule	<i>Melicia excelsa</i>	Iroko
10	Mvinji	<i>Casurina equisetifolia</i>	Whistling oak
11	Msaji	<i>Tectona grandis</i>	Teak
12	Mkungu wa kienyeji	<i>Terminalia catapa</i>	Sea almond
13	Mkungu india	<i>Terminilia ivorensis</i>	Black afara
14	Muhumula	<i>Maesopsis berchemoides</i>	
15			

Code	Local Name	Botanical Name	English Name
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

15.2 Crop Extension Messages									
S/N	Extension Message	Received Advice	Adopted	Source of	S/N	Extension Message	Received Advice	Adopted	Source of
		Yes=1 No=2	Yes=1 No=2	Crop Extension			Yes=1 No=2	Yes=1 No=2	Crop Extension
	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)
15.2.1	Spacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.9	Crop Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.2	Use of agrochemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.10	Vermin control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.3	Erosion control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.11	Agro-processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.4	Organic fertiliser use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.12	Agro-forestry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.5	Inorganic fertiliser use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.13	Bee Keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.6	Use of improved seed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.14	Fish Farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.7	Mechanisation/LST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.15	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.8	Irrigation Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Source of extension (Col 4) Government1 NGO/Dev project ..2 Cooperative ...3 Large scale farmer4 Other (Specify) ...8 Not applicable9									

16.0 LIVELIHOOD CONSTRAINTS

From the list of constraints on the right select:					List of constraints 1. Access to Land 2. Ownership of Land 3. Poor farm Inputs 4. Soil Fertility 5. Access to improved seed 6. Irrigation facilities 7. Access to chemical Inputs 8. Cost of Inputs 9. Extension Services 10. Access to forest resources 11. Hunting and Gathering 12. Access to potable water 13. Access to credit 14. Harvesting 15. Threshing 16. Storage 17. Processing 18. Market Information 19. Transport costs 20. Distruction by animals 21. Stealing 22. Pests and Diseases 23. Local government taxation 24. Access to off Farm Income	
16.1	the 5 most important problems		16.2	the 5 least important problems		
	Order of most importance	Constraint		Order of least importance		Constraint
	(1)	(2)		(1)		(2)
16.1.1	most important	<input type="checkbox"/>	16.2.1	Least important		<input type="checkbox"/>
16.1.2	2nd most important	<input type="checkbox"/>	16.2.2	2nd least important		<input type="checkbox"/>
16.1.3	3rd most important	<input type="checkbox"/>	16.2.3	3rd least important		<input type="checkbox"/>
16.1.4	4th most important	<input type="checkbox"/>	16.2.4	4th least important	<input type="checkbox"/>	
16.1.5	5th most important	<input type="checkbox"/>	16.2.5	5th least important	<input type="checkbox"/>	

17.0 ANIMAL CONTRIBUTION TO CROP PRODUCTION

17.1	Did you use Draft animals to cultivate your land during 02/03 (Yes=1, No=2) <input type="checkbox"/>				17.2	Did you apply organic fertiliser during 02/03 (Yes=1, No=2) <input type="checkbox"/>			
(If no, go to question 17.2)					(If no, go to question 18)				
S/N	Type of Draft	Number owned	Number used	Area cultivated (acres)	S/N	Type of organ Fertiliser	Area applied (acres)		
	(1)	(2)	(3)	(4)		(1)	(2)		
17.1.1	Oxen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2.1	FYM	<input type="checkbox"/>		
17.1.2	Bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2.2	Compost	<input type="checkbox"/>		
17.1.3	Cows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
17.1.4	Donkeys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Definitions and working page for page 12

Question Specific Definitions

Crop Extension Advice (Section 15.2)

Mechanisation/LST: LST means Labour Saving Technology

Section 16.0 Livelihood constraints

16.1 List the five most important problems in order of most importance:

1. Read out the list of constraints to the respondent and ask him to select the ones that are a problem. Place a ✓ against the constraints that are a problem.
2. Read the selected constraints and ask the farmer to select 5 which create the largest problems
3. Ask the farmer to list these in order of importance and enter in column 2

16.2 List the five least important problems in order of least importance:

1. Read out the list of constraints to the respondent and ask him to select the ones that are **NOT** a problem. Place an ✗ against the constraints that are **NOT** a problem.
2. Read the selected constraints and ask the farmer to select 5 which create the least problems
3. Ask the farmer to list these in order of least importance and enter in column 2

18.0 CATTLE POPULATION, INTAKE AND OFFTAKE															
18.1 Did the household own, raise or manage any CATTLE during 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>															
(If no go to section 19.0)															
18.2 Cattle Population as of 1st October 2003					18.3 Cattle Intake during 2002/2003										
S/N	Cattle type	Number of Indigenous	Number of Improved		Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Cattle	Average Value per head				
	(1)	(2)	Beef (3)	Dairy (4)	(5)		(6)	(7)	(8)	(9)	(10)				
18.2.1	Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
18.2.2	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
18.2.3	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
18.2.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
18.2.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
18.2.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
Grand Total					<input type="text"/>	Total Intake					<input type="text"/>				
18.4 Cattle Offtake during 2002/2003								18.5 Cattle diseases							
S/N	Cattle type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Cattle Offtake	Average value per head	S/N	Disease/parasite	Number Infected	Number Treated	No. Rec-oved	Number Died	Last vacci nated	Main Sou -rce
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
18.4.1	Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.1	Tick Borne diseases	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18.4.2	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.2	CBPP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18.4.3	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.3	Trypanosomiasis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
18.4.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.4	Lumpy Skin Disease	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18.4.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.5	Helmenthioitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
18.4.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.6	FMD	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total Offtake						<input type="text"/>	Last Vaccinated (Col 6) 20031 20004 20022 before 20005 20013 Not Vaccinated...6								
18.6 Milk Production							Sold to Q18.6 Col 5) Neighbour.....1 Largescale farm ..5 Local Market.....2 Trader at Farm ...6 Secondary Market ...3 Did not sell7 Processing industry .4 Other8				Main Source of vaccine (Col 7) Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not applicable9 NGO/Project.....3				
S/N	Season	Litres of milk/day	No. of cattle milked/day	Value/litre	Sold to	Sold/day (Litres)									
	(1)	(2)	(3)	(4)	(5)	(6)									
18.6.1	Wet Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
18.6.2	Dry Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									

Definitions and working page for page 13**General definitions for page 13**

Cattle Intake during 2002/03: Cattle purchased, given or born which increases the number of cattle in the herd.

Cattle Offtake during 2002/03:

Cattle removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 18.0)**Cattle type (Q 18.2 & 18.4, Col 1)**

Bull: Mature **Uncastrated** male cattle used for breeding

Cow: Mature female cattle that has given birth at least once

Steer: Castrated male cattle over 1 year

Heifer: Female cattle of 1 year up to the first calving

Calves: Young cattle under 1 year of age

Average Value per Head (Q 18.3, (Col 7 & 9) & 18.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Cattle vaccination (18.5 col 1)

ECF: East Coast Fever

FMD: Foot and Mouth Disease

CBPP: Contagious Bovine Pleura Pneumonia

Section 18.0 Cattle Population, Intake & Offtake.

NOTE: Section 18.1 is for the current population (as of 1st October 2003);
Section 18.2 and 18.3 is for movement in and out of the herd
during the 2002/03 agriculture year.
Section 18.4 is for diseases encountered during the agriculture year.

1. If the household has cows, you would normally expect them to have calves in column 8

2. If calves are reported in column 2, 3, or 4 (18.2.6, 18.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of cattle the importance of this must be reflected in Q 2.2.3

Section 18.5 If cattle are reported to have died in Column 5 then at least that number should be reported in 18.4 col 4

Working area for page 13

19.0 GOAT POPULATION, INTAKE AND OFFTAKE																
19.1		Did the household own, raise or manage any GOATS during the 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>														
19.2		Goat Population as of 1st October 2003				19.3 Goat Intake during 2002/2003										
S/N	Goat type	Number of Indigenous	Number of Improved for meat Dairy		Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Goats	Average Value per head					
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)					
19.2.1	Billy Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.1	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>					
19.2.2	Castrated Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.2	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>					
19.2.3	She Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.3	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>					
19.2.4	Male Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
19.2.5	She Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
Grand Total					<input type="text"/>	Total Intake					<input type="text"/>					
19.4 Goat Offtake during 2002/2003								19.5 Goat diseases								
S/N	Goat type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Goat Offtake	Average value per head	S/N	Disease/parasite	Number Infected	Number Treated	No. Rec-overed	Number Died	Last vacci nated	Main Sou -rce	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
19.4.1	Male goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
19.4.2	Castrated Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.1	Foot Rot	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X	
19.4.3	She Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.2	CC PP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
19.4.4	Male Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.3	Helminthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X	
19.4.5	She Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.4	Tetanus	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
Total Offtake						<input type="text"/>		19.5.5	Mange	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X	
19.6 Milk Production							Sold to Q19.6 Col 5) Neighbour.....1 Largescale farm ..5 Local Market.....2 Trader at Farm ...6 Secondary Market ...3 Did not sell7 Processing industry .4 Other8				Last Vaccinated (Col 6) 20031 20004 20022 before 20005 20013 Not Vaccinated...6					
S/N	Season	Litres of milk/day	No. of Goats milked/day	Value/litre	Sold to	Sold/day (Litres)										
	(1)	(2)	(3)	(4)	(5)	(6)										
19.6.1	Wet Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>										
19.6.2	Dry Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>										
											Main Source of vaccine (Col 7) Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not Vaccinable9 NGO/Project.....3					

Definitions and working page for page 14

Goat definitions for page 14

Goat Intake during 2002/03: Goat purchased, given or born which increases the number of goats in the herd.

Goat Offtake during 2002/03:

Goat removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 19.0)

Goat type (Q 19.2 & 19.4, Col 1)

Billy Goat (he-goat): Mature **Uncastrated** male goat used for breeding

Castrated goat: Male goat that has been castrated.

She Goat: Mature female goat over 9 months of age

Kid: Young goat under 9 months of age.

Average Value per Head (Q 19.3, (Col 7 & 9) & 19.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Goat vaccination (19.5 col 1)

FMD: Foot and Mouth Disease

CCPP: Contagious Caprine Pleura Pneumonia

LSD: Lumpy Skin Disease

Section 19.0 Goat Population, Intake & Offtake.

NOTE: Section 19.1 is for the current population (as of 1st October 2003); Section 19.2 and 18.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 19.4 is for diseases encountered during the agriculture year.

1. If the household has she goats, you would normally expect them to have kids in column 8
2. If kids are reported in column 2, 3, or 4 (19.2.6, 19.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of goats the importance of this must be reflected in Q 2.2.3

Section 19.5 If goats are reported to have died in Column 5 then at least that number should be reported in 19.4 col 4

Working area for page 14

20.0 SHEEP POPULATION, INTAKE AND OFFTAKE																
20.1 Did the household own, raise or manage any SHEEP during the 2002/03 agriculture year? (Yes =1 No =2)													<input type="checkbox"/>			
(If no go to section 21.0)																
20.2 Sheep Population as of 1st October 2003						20.3 Sheep Intake during 2002/2003										
S/N	Sheep type	Number of Indigenous	Number of Improved			Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Sheep	Average Value per head				
			for Mutton	Dairy								(5)	(6)	(7)	(8)	(9)
	(1)	(2)	(3)	(4)			(6)	(7)	(8)	(9)						
20.2.1	Ram			X X X		20.3.1			X X X							
20.2.2	Castrated Sheep			X X X		20.3.2			X X X							
20.2.3	She Sheep			X X X		20.3.3			X X X							
20.2.4	Male lamb			X X X		20.3.4										
20.2.5	She lamb			X X X		20.3.5										
Grand Total																
20.4 Sheep Offtake during 2002/2003							20.5 Sheep diseases									
S/N	Sheep type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Sheep Offtake	Average value per head		S/N	Disease/parasite	Number Infected	Number Treated	No. Rec-overed	Number Died	Last vaccinated	Main Source
							(6)	(7)								
	(1)	(2)	(3)	(4)	(5)	(6)				(1)	(2)	(3)	(4)	(5)	(6)	(7)
20.4.1	Ram															
20.4.2	Castrated Sheep								20.5.1	Foot Rot					X	X
20.4.3	She Sheep								20.5.2	CC PP						
20.4.4	Male lamb								20.5.3	Helminthiosis					X	X
20.4.5	She lamb								20.5.4	Trypanosomiasis						
Total Offtake									20.5.5	FMD						
											Last Vaccinated (Col 6) 20031 20004 20022 before 20005 20013 Not Vaccinated...6					
											Main Source of vaccine (Col 7) Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not applicable9 NGO/Project.....3					

Definitions and working page for page 15**Sheep definitions for page 15**

Sheep Intake during 2002/03: Sheep purchased, given or born which increases the number of Sheep in the herd.

Sheep Offtake during 2002/03:
Sheep removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 20.0)**Sheep type (Q 20.2 & 20.4, Col 1)**

Ram: Mature **Uncastrated** male goat used for breeding

Castrated sheep: Male sheep that has been castrated.

Ewe: Mature female sheep over 9 months of age

Lamb: Young sheep under 9 months of age.

Average Value per Head (Q 20.3, (Col 7 & 9) & 20.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Sheep vaccination (20.5 col 1)

FMD: Foot and Mouth Disease

CCPP: Contagious Caprine Pleura Pneumonia

Section 20.0 Sheep Population, Intake & Offtake.

NOTE: Section 20.1 is for the current population (as of 1st October 2003);
Section 20.2 and 20.3 is for movement in and out of the herd during the 2002/03 agriculture year.
Section 20.4 is for diseases encountered during the agriculture year.

1. If the household has ewes, you would normally expect them to have kids in column 8
2. If lambs are reported in column 2, 3, or 4 (20.2.6, 20.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of Sheep the importance of this must be reflected in Q 2.2.3

Section 20.5 If Sheep are reported to have died in Column 5 then at least that number should be reported in 20.4 col 4

Working area for page 15

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21.0 PIG POPULATION AND PRODUCTION															
21.1		Did the household own, raise or manage any PIGS during the 2002/03 agriculture year (Yes =1 No =2) <input type="checkbox"/>													
21.2		PIG Population as of 1 st October 2003					21.3 Pig increase during 2002/2003								
S/N	Pig type	Number					S/N	Number Purchased	Number given /obtained	Number Born	Total Pig Increase	Average Value per head			
	(1)	(2)						(3)	(4)	(5)	(9)	(10)			
21.2.1	Boar	<input type="text"/>					21.3.1	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>			
21.2.2	Castrated male	<input type="text"/>					21.3.2	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>			
21.2.3	Sow/Gilt	<input type="text"/>					21.3.3	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>			
21.2.4	Male piglet	<input type="text"/>					21.3.4	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>			
21.2.5	She piglet	<input type="text"/>					21.3.5	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>			
Grand Total		<input type="text"/>													
21.4 Pig decrease during 2002/2003								21.5 Pig diseases/pests/conditions							
S/N	Pig type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Pig Offtake	Average value per head	S/N	Disease/ parasite	Number Infected	Number Treated	No. Rec- overed	Number Died	Last vacci- nated	Main Sou- rce
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
21.4.1	Boar	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>								
21.4.2	Castrated male	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.1	Anthrax	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
21.4.3	Sow/Gilt	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.2	ASF	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
21.4.4	Male piglet	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.3	Anemia	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
21.4.5	She piglet	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.4	Helmenthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
Total Offtake						<input type="text"/>									
22.0 LIVESTOCK PEST & PARASITE CONTROL								22.3 Do you normally encounter a tick problem (Yes=1,No=2) <input type="checkbox"/>				Last Vaccinated (Col 6) 2003 ..1 20004 2002 ..2 before 20005 2001 ...3 Not Vaccinated.6			
								(If the response is 'NO' go to section 22.5)							
22.1 Did you deworm your animals during 2002/03 (Yes=1, No=2) <input type="checkbox"/>								22.4 Which methods of tick control did you use <input type="checkbox"/>				Main Source (Col 7) Private Vet Clinic ..1 District Vet Clinic ..2 NGO/Project.....3 Other8 Not applicable9			
								Control method (Q 22.4) None..1 Spraying ..2 Dipping..3 Smearing ..4 Other.8							
								22.5 Do you normally encounter a tsetse fly problem (Y=1,N=2) <input type="checkbox"/>							
								(If the response is 'NO' go to section 23.0)							
22.2 Which animals did you deworm ? (Tick appropriate boxes)								22.6 Which methods of control did you use <input type="checkbox"/>							
Cattle <input type="checkbox"/> Goats <input type="checkbox"/> Sheep <input type="checkbox"/> Pigs <input type="checkbox"/>								Control method (Q22.6) None .1 Spray .2 Dipping .3 Trapping .4 Other .8							

Definitions and working page for page 16**Pigs definitions for page 16**

Pig Intake during 2002/03: Pigs purchased, given or born which increases the number of Pigs in the production unit.

Pig Offtake during 2002/03:

Pigs removed from the production unit, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 21.0)**Pigs type (Q 21.2 & 21.4, Col 1)**

Boar: Mature **Uncastrated** male pig used for breeding

Castrated Pig: Male pig that has been castrated.

Sow: Mature female pig that has given birth to at least one litter of pigs.

Gilt: Female pig of 9 months up to the first farrowing.

Piglet: Young pig under 3 months of age.

Average Value per Head (Q 21.3, (Col 7 & 9) & 21.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Pig vaccination (21.5 col 1)

ASF: African Swine Fever

Section 21.0 Pig Population, Intake & Offtake.

NOTE: Section 21.1 is for the current population (as of 1st October 2003); Section 21.2 and 21.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 21.4 is for diseases encountered during the agriculture year.

1. If the household has sows, you would normally expect them to have piglets in column 8
2. If piglets are reported in column 2, 3, or 4 (20.2.6, 20.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of Pigs the importance of this must be reflected in Q 2.2.3

Section 20.5 If Pigs are reported to have died in Column 5 then at least that number should be reported in 20.4 col 4

Working area for page 16

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23.0 Other Livestock currently available and details of consumption and sales during the last 12 months								
	Animal type	Current			Sold during 2002/03		Consumed during 2002/03	
		Number	Number		Average Value/head	Number	Average Value/head	
		(1)	(2)	(3)	(4)	(5)		
23.1	Indigenous Chicken	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.2	Layer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.3	Broiler	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.4	Ducks	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.5	Turkeys	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.6	Rabbits	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.7	Donkeys	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
23.8	Horses	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
23.9	Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.0	CHICKEN DISEASES	Number infected		Number Treated	Number Died	Number Recovered		
24.1	Newcastle Disease	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.2	Gumboro	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.3	Coccidiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.4	Chorysa	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.5	Fowl typhoid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.0	LIVESTOCK PRODUCT	Sold during 2002/03			Consumed/utilised during 2002/03			
		Number		Average Value/unit	Number	Average Value/unit		
25.1	Eggs	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.2	Hides	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.3	Skins	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
26.0	List in order of importance the outlets for the sale of Livestock							
S/N	Importance of outlet	Outlets for Cattle	Outlets for Goat	Outlets for Sheep	Outlets for Pigs	Outlets for Chickens		
		(1)	(2)	(3)	(4)	(5)		
26.1	1st	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
26.2	2nd	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
26.3	3rd	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
26.4	4th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
26.5	5th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Outlet code (Col 2, 3, 4 & 5) Trader at farm1 Abattoir/factory.....5 Local Market2 Another farmer6 Secondary market/auction.....3 Other (Specify).....8 Neighbour4								
Source of structure (Q27.0 - Col 2) Owns1 NGO6 Cooperative2 Large scale farm7 Local farmers association3 Other8 Gov extension/veterinary4 Not applicable9 Development project5								
27.0	Access to functional Livestock structures /accessories							
S/N	Type of structure/ accessory	Source of Structure	Distance to structure (Km)					
		(1)	(2)					
27.1	Cattle Dip	<input type="text"/>	<input type="text"/>					
27.2	Spray Race	<input type="text"/>	<input type="text"/>					
27.3	Hand powered sprayer	<input type="text"/>	<input type="text"/>					
27.4	Cattle crush	<input type="text"/>	<input type="text"/>					
27.5	Primary Market	<input type="text"/>	<input type="text"/>					
27.6	Secondary Market	<input type="text"/>	<input type="text"/>					
27.7	Abattoir	<input type="text"/>	<input type="text"/>					
27.8	Slaughter Slab	<input type="text"/>	<input type="text"/>					
27.9	Hide/skin shed	<input type="text"/>	<input type="text"/>					
27.10	Input supply	<input type="text"/>	<input type="text"/>					
27.11	Veterinary Clinic	<input type="text"/>	<input type="text"/>					
27.12	Village holding ground	<input type="text"/>	<input type="text"/>					
27.13	village watering point/dam	<input type="text"/>	<input type="text"/>					
27.14	Drencher	<input type="text"/>	<input type="text"/>					

Definition and working page for page 17
Question Specific Definitions Section 26.0)
Procedures for questions
Section 23.0 - Other Livestock:

1. The current number includes both adult and young animals. For example The number of chickens in col 1 would include adults and chicks.

Question Specific Definitions Section 27.0)
Access to functional Livestock Structures/accessories (Section 27.0):

NOTE: The structures must be functional. If they are not working/derelect then they should not be included. The distance to the next nearest functional structure should be taken.

Spray Race: A fixed spray structure on an animal race for spraying acaricide

Cattle crush: Corridor structure for restraining cattle.

Abattoir: Large building designed for slaughtering a large amount of animals. It normally has complex structures to assist in the slaughter and storage and a high level of hygiene is maintained.

Slaughter Slab: Concrete slab designed for slaughtering a small amount of animals

Hides: obtained from Cattle

Skins: Obtained from sheep and goats

Hide/Skin Shed: Shed for curing/tanning animal skins and hides

Village holding Pen: Enclosure for containing large amount of livestock which is owned communally.

Drencher: Device for orally administering medicine to livestock. If no product was sold in 2002 enter "0" in columns 6, 7 & 9.

Section 26.0 - Outlets for livestock:

Using the codes enter the outlets for the sale of different livestock in order of importance. If there are, for example, only 2 outlets mark the rest with a "X".

28.0 FISH FARMING

28.1 Was **Fish farming** carried out by this household during 2002/2003? (Yes =1, No=2) (If the response is 'NO' go to section 29.0)

28.2 Specify details of fish farming practices

S/N	Product ion unit number	Fish farming system	Size of unit/pond (m2)	Source of fingerling	frequency of stocking (No/year)	Number of stocked fish			Number of fish harvested	weight of fish harvested	weight of fish sold	Mainly sold to
						Tilapia	Carp	Other				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
28.1.1	1	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
28.1.2	2	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
28.1.3	3	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Farming System (Col 2)
 Natural Pond...1 Natural Lake...3 Other...8
 Dug out pond...2 Water reservoir...4

Source of fingerlings (Col 4)
 Own pond...1 NGO/Project...3 Private trader...5
 Government Institution...2 Neighbour...4 Other...8

Mainly sold to (Col 12)
 Neighbour...1 Secondary Market...3 Large scale farm...5 Did not sell...7
 Local Market...2 Processing industry...4 Trader at Farm...6 Other...8

29.0 LIVESTOCK EXTENSION

29.1 Did you receive **livestock extension advice** during 02/03 (Yes=1,No=2) (If the response is 'NO' go to section 30.0)

S/N	Livestock Extension Message	Received Advice Yes=1,No=2	Adopted Yes=1 No=2	Source of Livestock Extension
	(1)	(2)	(3)	(4)
29.1.1	Feed and Proper feeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.2	Housing (Goat, Dairy, Poultry, Pigs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.3	Proper Milking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.4	Milk Hygiene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.5	Disease control (dipping/spraying)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.6	Herd/Flock size and selection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.7	Pasture Establishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.8	Group formation and strengthening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.9	Calf rearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.10	Use of improved bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.11	Other livestock extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source of livestock extension (Col 4)
 Government...1 NGO/Dev project...2 Cooperative...3 Large scale farmer...4 Other (Specify)...8

29.2 For the following Livestock Extension Service Providers give details

S/N	Extension Provider	If you pay for extension, what is the cost/yr	Contact farmer/group member (Y=1,N=2)	No. of visits by extension agency/year	No. of messages adopted in the last 3 yrs	Quality of Service
	(1)	(2)	(3)	(4)	(5)	(6)
29.2.1	Government	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.2	NGO/dev project	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.3	Cooperative	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.4	Large Scale farmer	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.5	Other.....	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

Quality of service (Col 6) Very good...1 good...2 Average...3 Poor...4 No Good...5

30.0 GOVERNMENT REGULATORY PROBLEMS

31.1 Did you face problems with government regulations during 2002/03 (Y=1, N=2)
 List in order of importance (If the response is no go to section 31.0)

	Problem code	Problem code
30.1.1	1st	Land ownership by government...1 Restriction of sale between regions...2
30.1.2	2nd	Import of food items...3
30.1.3	3rd	Other (specify)...8

Definitions and working page for page 18**General definitions for Section 28.0**

Fish farming: Refers to the rearing/production of fish. It is different to fishing in that the fish have to be reared and fed in fish farming. Fishing traps or captures naturally occurring fish in rivers, lakes and the sea and should not be included in this section.

Question Specific Definitions (Section 28.2)

Production unit number (Col 1): A production unit is a pond river/lake which is treated as a separate entity for the production of fish eg it may be by virtue of manageable size, maturity of fish, type of fish etc. Eg a farmer may have 3 fish ponds. (each one is a separate production unit).

Frequency of stocking (Col 5): What is the number of times the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

Sold: (Col 10 & 11)

If no fish were sold enter "0" in column 10 and 11)

Livestock Extension Services (Section 29.1)

Adopted (Col 3): This is the uptake of an intervention for 2 or more years

Livestock Extension Service providers (Section 29.2)

Contact Farmer: A farmer who is used by the extension services as a focal point to demonstrate new interventions to. The contact farmer then passes on the message to other farmers

Adopted (Col 5): This is the uptake of an intervention for 2 or more years

Working area for page 18

31.0 LABOUR USE				32.0 SUBSISTENCE vs NON-SUBSISTENCE																																																					
31.1 Who is mainly responsible for undertaking the following tasks:				32.1 Indicate if any members of the household was involved in the following activities and assess the percentage used for subsistence/consumption by the household:																																																					
S/N	Activity	Tick if carried out by hh	Main responsibility	S/N	Activity	Tick if hh was involved in activity	Estimate % used for subsistence	Estimate % used for no subsistence	Check Total																																																
	(1)	(2)	(3)		(1)	(2)	(3)	(4)	(5)																																																
31.1.1	Land Clearing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.1	Crop production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.2	Soil preparation (by hand)	<input type="checkbox"/>	<input type="checkbox"/>	32.1.2	Livestock production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.3	Soil preparation (oxen/tractor)	<input type="checkbox"/>	<input type="checkbox"/>	32.1.3	Vegetable production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.4	Planting	<input type="checkbox"/>	<input type="checkbox"/>	32.1.4	Tree cutting for firewood	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.5	Weeding	<input type="checkbox"/>	<input type="checkbox"/>	32.1.5	Tree logging for poles	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.6	Crop Protection	<input type="checkbox"/>	<input type="checkbox"/>	32.1.6	Tree logging for timber	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.7	Harvesting	<input type="checkbox"/>	<input type="checkbox"/>	32.1.7	Tree logging for charcoal	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.8	Crop processing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.8	fishing	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.9	Crop marketing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.9	bee keeping	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.10	Cattle rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>	32.1.10	employment/off farm	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.11	Cattle herding	<input type="checkbox"/>	<input type="checkbox"/>	32.1.11	employment/off farm	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.12	Cattle marketing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.12	Remittances	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.13	Goat/sheep rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.14	Goat and sheep herding	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.15	Goat and sheep marketing	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.16	Milking	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.17	Pig rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.18	Poultry keeping	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.19	Collecting Water	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.20	Collecting Firewood	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.21	Pole cutting	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.22	Timber wood cutting	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.23	Building/maintaining house	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.24	Making Beer	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.25	Bee keeping	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.26	Fishing	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.27	Fish farming	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.28	Off-farm income generation	<input type="checkbox"/>	<input type="checkbox"/>																																																						
Responsibility (Col 3) HH head alone1 Girls6 Adult Males2 Boys & Girls7 Adult Females.....3 All household members.....8 Adults.....4 Hired labour9 boys 5				33.0 ACCESS TO INFRASTRUCTURE & OTHER SERVICES																																																					
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Satisfied with service (Col 4) Very good1 Average.....3 No good5 Good2 Poor4 Not applicable 9																																																									

Definition and working page for page 19**Question specific definitions (Section 31.1)****Activity (Col 1):**

Land Clearing: Refers to removing trees/bush/grass prior to ploughing

Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc).

Cattle Rearing: Tending to cattle at home, eg assisting with births, castration, etc. Different livestock keeping activity to herding.

Cattle Herding: Moving livestock from place to place for grazing and water. If herding is carried out the respondent must also give a response to rearing/husbandry

Question Specific Definitions (Section 32.0.0)**Activity (Col 1):**

Subsistence: For the family's survival, rather than for the generation of cash. This includes feeding the hh, provision of water and fuel for cooking. The source of these products are usually from the land resources available to the family. Remember that not all cash earnings are for non subsistence purposes/activities as cash can be used to purchase subsistence items eg food.

Non -subsistence: Cash used for items and activities which are not crucial for the survival of the family. This includes modern medication, non working clothes, refined beer, school fees, etc.

Procedures for (Section 31.1)**Section 31.1 ((Labour use)**

1. For each listed activity in column 1, place a tick in column 2 if any member of the household was involved in that activity during the 2002/03 agriculture year.
2. After completing column 2 return to the first activity in row 27.1.1 and complete column 3.
3. Make sure you stress MAINLY responsible.

NOTE: If an activity has been mentioned previously in the questionnaire eg that the hh keeps chickens, make sure a response is obtained in the appropriate place ie poultry keeping.

If off-farm income generation is mentioned, check for responses to off farm income in other parts of the questionnaire

Section 32.0 - Subsistence vs Non-subsistence

1. For each listed activity in column 1, place a tick in column 2 if any member of the household was involved in that activity during the 2002/03 agriculture year.
2. After completing column 2 return to the first activity in row 32.1.1 and complete column 3 & 4. For each activity make an assessment of the percentage used for subsistence survival and the percent converted to cash for non subsistence goods and items.
3. Make sure you stress MAINLY responsible.

NOTE: Cross check the responses with previous sections in the questionnaire. eg if a response is given to remittances check for an entry in question 2.2.5

34.0 HOUSEHOLD FACILITIES																					
34.1 House Construction		34.2 Household assets																			
<p>For the main dwelling, what are the main building materials used in the construction of the following</p> <p>34.1.1: Roof <input type="checkbox"/> 34.1.2 Number of rooms <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px;"> <p>Roof Material</p> <p>Iron Sheets.....1</p> <p>Tiles2</p> <p>Concrete3</p> <p>Asbestos4</p> <p>Grass/leaves.....5</p> <p>Grass & mud.....6</p> <p>Other (Specify) 8</p> </div>		<p>Does your household own the following?</p> <table border="1"> <thead> <tr> <th>Asset</th> <th>Y=1 N=2</th> </tr> </thead> <tbody> <tr> <td>34.2. Radio/cassette, music system)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Telephone (landline)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Telephone (mobile)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Iron</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Wheelbarrow</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Bicycle</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Vehicle</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.2. Television</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Asset	Y=1 N=2	34.2. Radio/cassette, music system)	<input type="checkbox"/>	34.2. Telephone (landline)	<input type="checkbox"/>	34.2. Telephone (mobile)	<input type="checkbox"/>	34.2. Iron	<input type="checkbox"/>	34.2. Wheelbarrow	<input type="checkbox"/>	34.2. Bicycle	<input type="checkbox"/>	34.2. Vehicle	<input type="checkbox"/>	34.2. Television	<input type="checkbox"/>
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34.3 Energy use by the Household		34.4 Access to drinking water																			
<p>Energy use and access by the household</p> <p>Main Source of energy for</p> <p>34.3.1 Lighting <input type="checkbox"/> 34.3.2 Cooking <input type="checkbox"/></p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Lighting energy</p> <p>Mains electricity.....01</p> <p>Solar02</p> <p>Gas (biogas)03</p> <p>Hurricane Lamp04</p> <p>Pressure Lamp05</p> <p>Wick Lamp06</p> <p>Candles07</p> <p>Firewood08</p> <p>Other (specify) 98</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p>Cooking energy</p> <p>Mains electricity.....01</p> <p>Solar02</p> <p>Gas (hh biogas)03</p> <p>Bottled gas04</p> <p>Paraffin/kerocine.....05</p> <p>Charcoal.....06</p> <p>Firewood07</p> <p>Crop Residues08</p> <p>Livestock dung09</p> <p>Other (specify)98</p> </div> </div>		<table border="1"> <thead> <tr> <th>Season</th> <th>Main source of drinking water</th> <th>Distance to source (in km)</th> <th>Time to and from source (Hour : minute)</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> </tr> </thead> <tbody> <tr> <td>34.4. Wet Season</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> · <input type="checkbox"/></td> <td><input type="checkbox"/> : <input type="checkbox"/></td> </tr> <tr> <td>34.4. Dry Season</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> · <input type="checkbox"/></td> <td><input type="checkbox"/> : <input type="checkbox"/></td> </tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Main Source of drinking water</p> <p>Piped water01 Covered rainwater catchment ...07</p> <p>Protected well02 Uncovered rainwater catchment 08</p> <p>Protected/covered spring03 Water Vendor09</p> <p>Unprotected Well04 Tanker truck10</p> <p>Unprotected spring05 Bottled water11</p> <p>Surface water (lake/dam/river/stream)06 Other (Specify)98</p> </div>		Season	Main source of drinking water	Distance to source (in km)	Time to and from source (Hour : minute)	(1)	(2)	(3)	(4)	34.4. Wet Season	<input type="checkbox"/>	<input type="checkbox"/> · <input type="checkbox"/>	<input type="checkbox"/> : <input type="checkbox"/>	34.4. Dry Season	<input type="checkbox"/>	<input type="checkbox"/> · <input type="checkbox"/>	<input type="checkbox"/> : <input type="checkbox"/>		
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34.5 Access to toilet facilities		34.6 Food consumption patterns																			
<p>34.5.1 What type of toilet does your hh use <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px;"> <p>Type of toilet</p> <p>No toilet/bush.....1 Improved pit latrine - hh owned.....4</p> <p>Flush toilet2 Other type (specify)5</p> <p>Pit latrine - traditional ..3</p> </div>		<table border="1"> <tbody> <tr> <td>34.6. Number of meals the hh normally has per day</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.6. Number of days hh consumed meat last w</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.6. How often did the hh have problems in satisfying the food needs of the hh last year?</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Problems satisfying hh food needs (row 34.6.3)</p> <p>Never1</p> <p>Seldom2</p> <p>Sometimes3</p> <p>Often4</p> <p>Always5</p> </div>		34.6. Number of meals the hh normally has per day	<input type="checkbox"/>	34.6. Number of days hh consumed meat last w	<input type="checkbox"/>	34.6. How often did the hh have problems in satisfying the food needs of the hh last year?	<input type="checkbox"/>												
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34.7 Source of Household income																					
<p>34.7.1 What is the households main source of cash income? <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px;"> <p>Source of Income codes</p> <p>Sale of food crops01 Wages or salaries in cash07</p> <p>Sale of Livestock.....02 Other casual cash earnings ..08</p> <p>Sale of livestock products ...03 Cash remittances09</p> <p>Sale of cash crops.....04 Fishing10</p> <p>Sale of forest products05 Other98</p> <p>Business income.....06 Not applicable99</p> </div>																					

Definition and working page for page 20**Household facilities (Section 34):****Number of rooms used for sleeping in the household (Q 34.1)**

Include sitting room, dining room, kitchen, etc if used for sleeping. It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building/house that is not divided into rooms is considered to have one room.

Household assets (Q 34.2): these assets must be functioning. Do not include if broken.

Access to drinking water (Q 34.4): If there is more than one source, use the one, which the hh uses most frequently.

Main source of hh cash income:

Activity that provides the hh with the most cash during 2002/03 agriculture year.

Average/maximum yields						Use this table to compare the yields calculated in sections 7.1, 7.2, and 7.3. They are STRICTLY to be used as guidelines only and the sole purpose is to assist in getting the correct area and harvest for each crop					
Crop Name	kg/ha		kg/acre		Crop Name	kg/ha		kg/acre			
	Average	Max	Average	Max		Average	Max	Average	Max		
11 Maize	1200	6250	486	2530	86 Cabbage			0	0		
12 Paddy	700	4000	283	1619	87 Tomatoes			0	0		
13 Sorghum	750	3500	304	1417	88 Spinach			0	0		
14 Bulrush Millet	350	3000	142	1215	89 Carrot			0	0		
15 Finger Millet	300	2500	121	1012	90 Chillies			0	0		
16 Wheat	1200	4500	486	1822	91 Amaranths			0	0		
17 Barley	1400	2300	567	931	92 Pumpkins			0	0		
21 Cassava	3000	7000	1215	2834	93 Cucumber			0	0		
22 Sweet Potato	600	8000	243	3239	94 Egg Plant			0	0		
23 Irish potatoes	750	8500	304	3441	95 Water Mellon			0	0		
24 Yams	4000	10000	1619	4049	96 Cauliflower			0	0		
25 Cocoyams	2500	5000	1012	2024	52 Sisal	800	25000	324	10121		
26 Onions			0	0	54 Coffee	500	100	202	40		
27 Ginger			0	0	55 Tea	2500	10000	1012	4049		
31 Beans	400	1300	162	526	56 Cacao	200	1000	81	405		
32 Cowpeas	300	1750	121	709	57 Rubber	400	1400	162	567		
33 Green gram			0	0	58 Wattle			0	0		
34 Pigeon pea	600	2000	243	810	59 Kapok			0	0		
35 Chick peas	500	1500	202	607	60 Sugar Cane	60000	150000	24291	60729		
36 Bambara nut	600	4000	243	1619	61 Cardamom			0	0		
41 Sunflower	600	1700	243	688	71 Banana	10000	50000	4049	20243		
42 Simsim	300	1000	121	405	72 Avocado			0	0		
43 Groundnut	600	4000	243	1619	73 Mangoes	10000	25000	4049	10121		
47 Soyabeans	1300	2500	526	1012	74 Papaw	50000	70000	20243	28340		
48 Caster seed	300	750	121	304	76 Orange	20000	40000	8097	16194		
75 Pineapple	25000	60000	10121	24291	77 Grape fruit	30000	50000	12146	20243		
50 Cotton	300	1500	121	607	78 Grapes	5000	30000	2024	12146		
51 Tobacco	500	2000	202	810	79 Mandarin/tange	20000	40000	8097	16194		
53 Pyrethrum			0	0	80 Guava	7000	35000	2834	14170		
62 Jute	800	3500	324	1417	81 Plums			0	0		
44 Palm Oil	1200	5000	486	2024	82 Apples			0	0		
45 Coconut	2000	8000	810	3239	83 Pears			0	0		
46 Cashewnut	9	60/tree	4	24	84 Pitches			0	0		

Back Page Reference material

This page contains reference information that may be required to complete some of the questions in the questionnaire.

Weights and measures

1 hectare = 10,000 sq metres (100 x 100 metres)
 1 kilometre = 1000 metres
 1 acre = 4840 square yards (110 x 44 yards)

Conversions

1 hectare = 2.47 acres
 1 mile = 1.61 Kilometres

Kg equivalents

The following standards may be used as a guide to obtain kg if the reported unit is different. Only use these conversions if the respondent is unable to provide weights in kgs.

	Crop Name	Number of Kgs			
		Standard		Non-standard	
		Bag	Tin	Name	kgs
11	Maize	100	18	Rumbesi	140
12	Paddy	75	15		
13	Sorghum	100	18		
14	Bulrush Millet	100	18		
15	Finger Millet	120	20		
16	Wheat	75	15		
17	Barley	75	15		
21	Cassava	60	12		
22	Sweet Potatoe	80	16		
23	Irish potatoes	80	16		
24	Yams	80	16		
25	Cocoyams	80	16		
26	Onions	80	16		
27	Ginger	75	15		
31	Beans	100	20		
32	Cowpeas	100	20		
33	Green ram	100	20		
34	Pigeon pea	100	20		
35	Chick peas	100	20		
36	Bambara nut	100	20		
41	Sunflower	60	12		
42	Simsim	100	20		
43	Groundnut	50	10		
47	Soyabeans	100	20		
48	Caster seed	100	20		
75	Pineapple	90	18		
50	Cotton	50	10		
51	Tobacco	70	14		
53	Pyrethrum	60	12		
62	Jute	50	10		
44	Palm Oil	100			
45	Coconut	75			
46	Cashewnut	80			
	Crop Name	Number of Kgs			
		Standard		Non-standard	
		Bag	Tin	Name	kgs
86	Cabbage	50			
87	Tomatoes	90			
88	Spinach	45			
89	Carrot	110			
90	Chillies	85			
91	Amaranths	50			
92	Pumpkins	60			
93	Cucumber	80			
94	Egg Plant	70			
95	Water Mellon	80			
96	Cauliflower	50			
52	Sisal	130			
54	Coffee	55			
55	Tea	60			
56	Cacao	60			
57	Rubber				
58	Wattle	90			
59	Kapok				
60	Sugar Cane	120			
61	Cardamom	100			
71	Banana	120			
72	Avocado	140			
73	Mangoes	130			
74	Papaw	100			
76	Orange	130			
77	Grape fruit	120			
78	Grapes	80			
79	Mandarin/tange	110			
80	Guava	110			
81	Plums	110			
82	Apples	110			
83	Pears	110			
84	Pitches	110			

For official use only:

If a question has a query, an indication will be made by the supervisor/data entry controller on the front page of the questionnaire. This space is to note what and where the problem is, the action required to be taken and the responsible person to take follow up action.

Nature of the problem:

Action Required: National supervisor action

Field supervisor action

Overall Status: Does not affect overall integrity of the questionnaire.
 More data is required before it can be used

Discard and resample
 Discard as missing data